SFDP West-Kalimantan field trip report
February 1995

SRAP
Smallholder Rubber Agroforestry Project

Rubber Agroforestry Systems

R.A.S. ON-FARM TRIALS IMPLEMENTATION

in

WEST KALIMANTAN

Sanggau and Sintang areas

FIELD TRIP REPORT TO SFDP WEST-KALIMANTAN
13-24 February 1995

N° 1995/1

E Penot, February 1995
ICRAF
SRAP PROJECT

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I would like to strongly thank all staff and persons that have help us in this mission, and in particular, PAK Ir Sunario and Pak Suleyman, Demonstration and trials assistant, SFDP Sanggau, for their very active participation in the implementation of SRAP activities.

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TIME SCHEDULE KUNJUNGAN MR. ERIC PENOT DI SANGGAU/SFDP
BULAN PEBRUARI 1995

File:\icraf\eric–2

Tanggal	Uraian	Keterangan
15	Planning di SFDP	09.00 – 12.00
	Menghubungi Gapkindo untuk Pelatihan Pasca Panen Karet	
	Kunjungan di Sengoret/Maringin Jaya	14.00 – 16.00
	Meeting dengan Mr. Andreas di R. Mr. Andreas	19.00 – selesai
16	Seleksi Staf Lapangan/test, dilanjutkan kunjungan	07.00 – 16.00
	lapangan ke Semboja 2, dan Kopar dengan calon staff	
	Keputusan pemilihan staf baru untuk ICRAF	Sore
17	Memberikan masukan di Rapat Tim Pengarah (Carano)	10.00 – 11.00
	kerjasama ICRAF – BLI di masa mendatang	
	Pembahasan mengenai Logistik (Eric + Sunaryo + Staf Baru)	13.00 – Selesai
18	Pembuatan Metodologi (Mr. Eric)	Full time
19	Rekreasi di Penyeladi Mr. Eric + Mr. Ex	08.00 – 12.00
	Membuat Laporan ICRAF	12.00 – Selesai
20	Memberikan Laporan ke Pemda/Disbun	08.00 – 10.00
	Pembahasan Metodologi dan Pelatihan RAS (Eric, Naryo, Sulaiman, Staf Baru)	10.00 – Selesai
	Perencanaan RAS untuk Bulan Oktober 1995	
21	Pembahasan tentang Budget (Eric, Ex, Tri, Sinyal)	
	Memberikan masukan pada pelatihan pasca panen karet dengan Gapkindo	11.00 – Selesai
22	Kunjungan Lapangan ke Sanjan dan Sei Kosak (Eric, Sulaiman, Sunaryo dan staf Baru)	08.00 – Selesai
23	Pembahasan Akhir kunjungan Mr. Eric	13.00 – Selesai
24	Mr. Eric Kembali ke Pontianak bersama (Naryo sekeluarga)	

Rapat Tanggal 15 Pebruari 1995
Peserta : Eric Penot, Andreas, Ex, Sunaryo
Topik : Persiapan Seleksi Calon Staff ICRAF (6 orang)
Jadual Kegiatan Mr. Eric Selama 10 hari (15 – 24 Pebruari 1995) di Sanggau
Laporan ICRAF ke Pemda/Disbun Kabupaten Sanggau
Budget Pelatihan Agroforestry oleh BLI dan ICRAF yang akan dimulai tahun 1997 (sumber dana dari ADP)
Keputusan–keputusan:
- Expansion area penelitian untuk 10 ha lagi
- Seleksi staf lapangan
- Bahan–bahan yang diperlukan untuk Percobaan RAS
- Cara kerjasama Eric – Sunaryo – Staf Lapangan tentang kontrak/ kerangka tugas untuk (survei, monitoring, laporan, pelatihan) di Sanggau dan Sintang

Pelatihan Pasca Panen Karet
Sumbangan pertemuan BLI di Carano tentang Pelatihan Agroforestry dan Semboja II
Pelatihan khusus RAS Mei '95 selama 2 hari (tersedia anggaran Rp. 500.000,–) untuk bulan Oktober 1995 selama 3 hari 30 orang (Rp. 1.000.000,–)

1 OBJECTIVE OF THE FIELD TRIP

The objectives of this field trip were the following :

1) to monitor the implementation of RAS activities and in particular to check all problems concerning the establishment of the RAS on farm trials and budwood gardens.

2) the selection of a field assistant for SRAP.

3) the programmation of the activities for the next 3 months

4) the preparation of the next planting programme scheduled for september 1995 in Sanggau area.

2 PROGRAMME OF THE MISSION

See the programme in the next page.

2.1 Selection of a field assistant

Pak Asgnari has been selected among 4 candidates to be the SRAP field assistant. A contract (see annex 3) has been set-up and will be , prior to signing, checked by GAPKINDO. The probation time is 3,5 months. A programme of activities has been decided (annex 3) for the next 3 months on the following activities :

- training sessions in Semboja I and II : identification of MPT's, nursery techniques... and a 3 days training period with the Sintang TCSDP.

- RAS/OFT planting monitoring
- village surveys in Kopar, Sengoret, Pemodis, Sanjan, Sungei Kossak and Trimulia in Sanggau area, as weel as Paribang Baru in Sintang area.
- farming system survey : implemented for all farmers involved in SRAP activities in West-Kalimantan.

A complete evaluation of the work done so far will be done in May 1995.

2.2 RAS-OFT planting programme

So far the SRAP research programme has been developped in the following locations :

SRAP locations :

KOPAR	7 farmers
SENGORET	7 farmers
SANJAN	10 farmers
SUNGEI KOSSAK	Kelompok petani/a small group of farmers.
SINTANG	10 farmers
total	34 farmers

Grafting success rate in nurseries (and subsequent payement) and planting material distribution for 1995 the february planting are available in the annex 6 (data from Pak Sunario). So far , 5,14 ha of RAS trials have been planted in Sanggau area (In sintang, the plot have already been planted with PB 260 by the PKR-GK project in 1993. The report on the total expenses of SRAP at the date of the writing of this report is available in the annex 2.

Visit to RAS OFT locations

We have visited the OFT locations in Kopar and Sengoret. So far the problems that have been observed are the following :

- the control of budding/pruning of the planted clones, as well as those in nurseries, should be made every week in particular in Sengoret.

- The rubber stumps should be planted at the ground level and not within a hole. The grafting point should above the ground level.

- Some plots (Gabriel's plot)have Imperata in the surroundings. Imperata should be slashed and treated with Round-up during the dry season.

- The problem of the dose of fertilization, rock phosphate, may be revised and it is probable that the initial dose may be doubled. This will be decided after more information from Mr Delabarre. The very low price of rock phosphate allow us to increase the "growth booster" dose.

- It will be necessary to forecast urea fertilization for the plants in nurseries for a better growth for the next planting. Half of the stumps have been planted directly, and the other half has been put in polybag or using tapih technique.

- The tapih technique does not seem to be favourably adopted by farmers (in particular in sanjan). Polybag should be used for next planting.

- the question of fertilization for the associated perennials has been raised by farmers. So far, we don't provide fertilizer for that purpose. Observations in the field and the analysis of the growth of the perennials will tell us if such fertilization is really required for further planting.

- for the RAS 2 trials, the fermers seems to want to grow corn in the dry season. In that case, the soil being ocupied all time with a crop, it might not be necessary to use Round-up to control Imperata. Attention should be put not to use herbicide if it is not necessary.

- some plots are cropped with cassava (that was associated with rice). It is not a problem as long as all cassava plants will be removed at one year old.

- a demand has been recorded concerning the providing of improved varieties of vegetable and chili for RAS 2 intercropping. Each case will be seen individually but the general method is to compare local variety with an improved variety. SRAP will provide to the farmers the required seeds for half of the plot.

Visit to Sanjan and Sungei Kossak

Two small budwood gardens have been established in these vilages on the request of the farmers who decided to create a "group of interest". We may use the concept of group of interest as the activities ofthe groups may be different. We have currently two type of groups : the groups implementing RAS trials and the groups that want to implement their own RAS systems and need only a reliable source of planting material. In this last case, SRAP provide a small budwood garden and monitor the use of this planting material in rubber based agroforestry systems set up by the farmers (as well as the plot themself). In this case, we test not only the capacity of farmers to adapt their own RAS systems but also their ability to manage a village small scale budwood garden. This approach is developped in Sanjan and Sungei Kossak

The gardens have been visited. Sungei Kossak may also be one of the selected village for the october planting programme.

The budwood garden in Sei Kossak is also cropped with Cassava and some king grass. These plants should be removed. 2 clones are available : PB 260 and BPM 1.

The budwood garden in Sanjan is perfectly done and managed. 3 clones are available : PB 260, RRIC 110 and BPM 1.

Signs with the name of clones should be put in each garden. It is important to remind that a budwood garden cannot be intercropped.

SRAP activities in Sanjan : some precisions

Discussions with farmers in Sanjan shows that further meetings are required for a good informpation with farmers on the objectives of SRAP in this village as well as the utilisation of the budwood garden. On request of farmers in decembre 1994 that wanted to implement "RAS type" plantations on their own (which means that they may modify the RAS type according to their own ideas), SRAP agreed to provide a small scale budwood garden in order to provide clonal budwood to farmers involved in this group. The group has also decided to implement a small nursery for next planting (the selected area has been visited). However, it should be precised to all farmers involved in this group that the planting material suplied to them should be used in rubber agroforestry systems, what ever systems they have choosen, and that SRAP will monitor, and support the experimentation, only at this condition. Sanjan's farmers may decide their own RAS type but ***it has to be a rubber based agroforestry systems.*** Further meeting will enable SRAP to explain correctly to farmers this methodology in case things are not clear and to see how to organize with them this particular approach. A RAS plot file should be prepared.

2.3 Participation to a training course.

A short presentation of the SRAP project as well as a general presentation of the linkage between quality and productivity has been made at a training session organized by SFDP/BLI with farmers and traders from PFMA zone (in annexe 4 the overheads of the presentation).

2.4 Presentation of the SRAP programme to the SFDP/BLI seminar

The BLI departement of SFDP, for extension and training departement, will probably evoluate into an independant association for training and demonstration within 2 years. This seminar aimed to prepare this evolution. As SRAP activities will expand in Sanggau area, and probably also the training component of the project, the SRAP research programme has been presented as well as the possible extension activities and prospects in the nex future. (in annexe 4 the overheads of the presentation).

3 Programme of activities and SRAP activities extension

A programme of activities has been set up for the next 3 months including the activity of the new SRAP field staff. This programme is in annexe 1.

An important activity will be the selection of the villages for the next RAS/OFT planting seesion in october.

All requirements for the current planting campaign, as well as for the next one in September has been reviewed. Information and programmation are presented in the annexe 2.

The extension of the SRAP activities are sheduled in the following villages :

NEXT VILLAGES

PEMODIS
TRIMULIA
Sungei Kossak
other places.....

TOTAL next villages : focasted : 20/30 farmers

(total number of farmers for the end of 1995: 54/64 farmers).

3.1 1995 OCTOBER RAS PLANTING TARGET

A estimation of the number of trials and the total area is suggested in order to forescast our activity and to identify the next target for october planting session. The programme is the following :

- 7 ha of RAS 2 in Sintang (already planted).

- 6,5 ha for RAS trials in the Sanggau area where SRAP is providing all rubber planting material (stumps from TCSDP Sintang), with, if it is possible 2 ha of RAS 1, 0,5 ha of RAS 1/control plot and 4 ha of RAS 2 and 3.

- 10 hectares of RAS 2 and 3 in villages where farmers have already plantes their nurseries : in that case the project provide only the budwood.

TARGET for new planting in october 1995 : 16,5 ha.

All other requirements (fertilizers, unvailable associated perennials seeds, MPT's and covercrops seeds, improved upland rice seeds, herbicide..... will be provided by SRAP. All these requirements have been calculated (tables in the annexe 2).

The rubber planting material will come from TCSDP Sintang nursery with budwood from Sintang budwood garden (for PB 260 clone) and from Sossok (for BPM 1 and RRIM 600 clones). Our requirements have been discussed with TCSDP head office in Pontianak.

A collection of associated perennials seeds will be organized in february/March (the fruiting season in West-Kalimantan) in order to be able to provide to the farmers the required seeds fpor the 1995 october planting session. A nursery will be set up in Semboja 2.

Some multiplication plots for covercrops, in particular for Chromolena will also be established in order to secure our requirements.

The total requirements for material, seeds, fertilizers and herbicide has been calculated (annex 2). Purchases will occures between March and June 1995. The rock phosphate will be purchased in Pontianak through GAPKINDO as herbicide and urea may be purchased in Sanggau through the local KUD.

3.2 Total budget for 1995 SRAP activities for the West-Kalimantan province

The total budget for 1995 for the West-Kalimantan province is presented in the annexe 2 with the main following budget lines :

ACTIVITY	AMOUNT in millions rp
PLANTING MATERIAL FOR RAS	6,3
SINTANG RAS COST	2,4
SANGGAU RAS COST	5,4
STAFF COST	5,2
TRAINING COST for farmers	1,5
MATERIAL	0,5
OBVERHEAD	0,5
TOTAL COST	21,8

The distribution will be :
GAPKINDO West-Kalimantan : 10,5 millions rp
GAPKINDO Jakarta/ADP and ICRAF : 11,3 millions rp.

The next tables in this annex 2 show the detailled costs calsulation for plantiong material, materials for the trials and staff cost, related to the 1995 october planting session target.

3.3 RAS 3 trials implementation

Some points have been modified in the methodology for RAS 3 in particular. The subplots will be reduced to 13 and not 15 (see report number 1994/3), with 2 replications for the february planting as only 2,5 ha of RAS 3 are available. Plot distribution and selected sub-plots are presented in the annex 2.
Before the potential problem of growth expected for MPT's and covercrops in the poor soils of West-kalimantan, according to the experience of Pak Sunario, each sub plots may be divided in two part : with and without fertilization (dose 100 kg/ha of rock phosphate for MPT's and covercrops. The complete protocole will be released in the very next future within the SRAP methodology document.

3.4 The local upland rice varities survey for RAS 2 trials.

A survey on local upland rice varieties will be done, in order to select the best varities, (according to the farmpers) and to test them as intercropping with fertilization in RAS 2 trials for next september. A collaboration with PPI/Singapore will enable to identify the best economic fertilization dosis.

The idea is to test several improved upland rice varieties (from IRRI, CRIFCI or the "kenia" variety...) to sustain rice production in intercropping in the first 3 years in RAS 2 tyrials, but also to identify among the local varieties those that may play the same role with a consequent level of fertilization.

3.5 SURVEYS

2 ttypes of surveys will be implemented in Sintang and Sanggau areas :

- village surveys in Kopar, Sengoret, Pemodis, Sanjan, Sungei Kossak and Trimulia in Sanggau area, as well as Paribang Baru in Sintang area.

- farming system survey (FSS): implemented for all farmers involved in SRAP activities in West-Kalimantan. The questionnaire ofthis FSS has integrated the questionnaire made by Anne Gouyon for the FSS in South-Sumatra (1988-1991), to enable us a comparison between provinces.

- RAS plot monitoring files : a file for the monitoring of each kinf of trial, for each plot has been set-up. These files are not complete as other kind of data may be relevant to monitor such as biodiversity;....these files may evoluate according to the necessay information required for a complete analysis.

All surveys questionnaires and RAS plot files are presented in the annex 5
A complete analysis of the first surveys will also enable us to improve these questionnaires as well as enabling the new SRAP field staff to be trained on data collection and surveys implementation.

Soil anamysis shoulb be done for each plot. A collection of samples is sheduled in may 1995.

Local plot monitoring

Tembawang and local jungle rubber plots should be selected for a complete monitoring. This is sheduled for the next mission in may 1995.

4 SFDP BLI evolution and training policy for the future.

Discussion habe been carried out between SRAP and SFDP concerning the next evolution of BLI to an independant NGO providing training courses within 2 years. The cost of specific training sessions to SRAP farmers have been estimated to be included in the budget proposal submitted to ADP/USAID.

SFDP/BLI will continue to provide assistance and support to the project in the current conditions for 1995 and 1996 on a restricted programme such a the following :

Training requirements for 1995 :

May/june 1995 : RAS methodology presentation information and training session for the new farming selected for the september planting : 30 farmers, 2 days.

November/december : general session of RAS methodology analysis and first results of OFT : participatory approach. Review of all problems for RAS establishment and implementation. 2 possibilities : All farmers () or only those from the first planting session (30 farmers). Possibly in one or two sessions of 2 days, depending on the number of farmers.

A training of SRAP field staff to computer use.

Conclusion

Next mission is scheduled for last 2 weeks of may 1995.

ANNEX 1

PROGRAMME OF ACTIVITIES

for February to may 1995

GAPKINFO/ICRAF SRAP PROJECT

PROGRAMME OF ACTIVITIES FOR RAS PLANTING IN SANGGAU AND SURVEYS

FEBRUARY_ MAY 1995

FEBRUARY 1995

PROGRAMME OF ACTIVITIES FOR RAS PLANTING IN SANGGAU AND SURVEYS FEBRUARY_ MAY 1995

ON FARM TRIALS

- 1 - RAS planting february 1995 Sanggau.

INDIVIDUAL FARMERS' NURSERIES CONTROL AND MONITORING

A control and a monitoring of the individual nurseries with the plants in polybag or tapih technique will be made before planting : objective : to verify that the plants are planted at the right stage : the good stage for planting is a stem with 1 floor with fully adult leaves, stage D.
It is suggested that during this period, a short visit to all individual farmers' nurseries should be made for counselling and monitoring the good development of the plants, for instance, once a week (it can be done in one day for all farmers).

PLANTED TREES BUDDING CONTROL : PRUNING OF NON GRAFTED BUD STEM.

Every tree already planted, as well as those in nurseries must be checked : the new stem should come from the grafted bud and not from any other other bud. This control should be made EVERY WEEK.

RAS PLOT CONTROL

Pak Asngari, as a training but also to permit to him to know very well each RAS plot, will do a control for each plot of the following :

- control of the existing map of each plot

- control of the number of rubber plants already planted (direct planting) and those still in nursery to be planted.
- control of dead plants : also for the identification of the number of new rubber plants to be given to the farmers if necessary if some plants are lacking to fullfill the plot.
- control that all rubber stumps are effectively the right clone per plot :

see the colour code :

COLOR CODE FOR THE RUBBER GRAFTED PLANTS :

CLONES	COLOR
RRIC 100	RED NORMALLY / no colour for february planting
BPM 1	BLUE
PB 260	BLACK
TM 8	YELLOW, only in Sembija II budwood garden

HOLING MONITORING

Control that the holing is correctly done for the rubber plants still to be planted (those in nursery : tapih or polybag). The holes should be 30 x 30 x 30 cm. The rubber plants should be planted at the same level of the soil (like in budwood garden in Semboja II). After planting, a control for pruning is done every week.

CONTROL OF PADDY LADANG PRODUCTION

The total paddy production of the RAS plot should be checked in order to calculate the paddy yield.

CREDIT FOR A SPRAYER IN SENGORET

A credit will be provided to Sengoret RAS farners' group of 100 000rp in order to enable them to buy a sprAyer. Reimbursement will be on two years with 50 000 rp each year.
A contract of credit will be written by Sunario.

- 2- Sintang

Pak Asgnari willl go to Sintang every month for some days in the fields.

RAS 2 PLOT IDENTIFICATION / MARCH

The area and the numbering of rubber trees and other trees on a map should be made for each plot.

CONTROL OF PADDY LADANG PRODUCTION : MARCH

The total paddy production of the RAS plot should be checked in order to calculate the paddy yield.

RAS 2 : PERENIAL SEEDS REQUIREMENT / MARCH

Before the difficulty for Sintang farmers to find out seeds, all seeds or plants of perennial trees should be provided to farmers. Farmers will provide Durian seeds.

Provided seeds : belian, tengkawang, tekam, meranti, petai, jengkol, kemiri, rambutan, langsat, keladan, merkuyung ....

NOTA : there is no Sengon/Albizzia and acacia in RAS 2 and all trials in Sintang are RAS 2. However, some trees may be used on request of the farmers.

IMPERATA CONTROL EXPERIMENTATION IN SINTANG FOR RAS 2

In Sintang, a trial concerning the control of Imperata may be implemented as following in between the two intercropping season (between March and September) :

Depending on the level of invasion by Imperata :
if Imperata is covering a large part of the plot : the plot is divided in 3 sub-plots

- 1 - sub-plot with no slash of Imperata and 4 liter of Round-up

- 2 - sub-plot with slash of Imperata and 4 liter of Round-up
- 3 - sub-plot with slash of Imperata and 2 liter of Round-up

if Imperata is covering small part of the plot :
- half plot with no slash of Imperata and 2 liter of Round-up
- half plot with slash of Imperata and 2 liter of Round-up

The slashing should be made 3 weeks before the application of Roundup, therefore 4 to 5 weeks before rice planting. Aplications should occur in july.

Discussion with the farmers and preparation of the plot in April or may.

- 3 - Sanggau and Sintang

STATUS OF EACH RAS PLOT

A short description should be made for each plot after complete planting of rubber trees in order to know :
- which kind of vegetation is still in the field : alang², cassava, other crops ???, ???
To be written on the RAS plot FILE (see later)

CONTROL OF ASSOCIATED PERENNIALS PLANTING for RAS 2 and RAS 3

Each farmer should find enough seeds for the associated perennials (pohon lain, pohon buah buahan, pohon kayu...) he wants to plants in the RAS 2 and RAS 3 plots.
The farmers should prepare a small nursery or should plant directly the perennials seeds. We consider a nursery success rate of 50 % : therefore the farmer should prepare the double number of seeds of what is really required in the field. Every perennial tree should be put on the plot map.

For 1 ha (see the RAS maps) :
rubber planting density : 550 trees/ha : 6 x 3 metres
Perennial trees : planting density : 250 trees/ha in between rows of rubber : more or less 6 x 6 metres on a line in the interrubber rows.

For RAS 3 , In between the perennials trees may be planted Sengon (Albizzia falcata) and Acacia Mangium at 6 x 6 metres also.

Sengon and Acacia are provided to the farmers by SRAP.

For the perennials associated trees :

- a part of the seeds are provided by the farmers : durian, duku, rambutan, petai, tengkawang....for the seeds that rae esasily available to the farmers in the surrounding forest or tembawang.
- SRAP is providing to the the farmers the seeds of trees that are not locally available : such as belian, tekam, meranti.....timber trees seeds, jengjol.....and improved varieties. Sunario has already ckecked with the farmers their requirements.

A control should be made in order to verify that the farmers are collecting the required seeds for their RAS plots.

OTHER MONITORING for RAS 2

Each plot should be checked in order to know what are the next crops to grow in the next dry season as intercrooping (corn, palawijas, other....).

In Sanggau area RAS 2 trials in Sengoret :
dry season : corn or palawija or other,
rainy season : improved upland rice + fertilization.
Normally no round-up is required as the soil will be occupied evreythime by crops. A small amount of herbicide may be required for Imperata control around the plot.

A great demand has been observed in Sengoret for improved varieties for chili and vegetables. For Sengoret, for instance : the RAS 2 plot may bedivided in 5 sub plot for the september intercropping :
1/4 plot with chili, improved varieties,
1/4 plot with chili, local varieties,
1/4 plot with upland rice, improved varieties with fertilization,
1/4 plot with upland rice, local varieties, with fertilization
A small plot of 500 m^2 may be used asa control with local upland rice, no fertilization.

MPT's and covercrops seeds for RAS 3

MPT's and covercrops seeds should be be collected and distributed to the farmers. There is a specific plot organization for each trial : with sub-plots of 1000 m² each with several combinations of MPT's, Covercrops and covercrops and MPT's. A complete list and maps of sub-plots will be released.

Each farmer implementing RAS 3 will be informed and should plant all MPT's and covercrops in March, as soon as possible after the paddy harvest. A meeting should be organized in Kopar with RAS 3 farmer including also Christianus from Sengoret to inform all farmers about these subplots.
Each sub plot ha 1000 m² with one treatment. Each sub plot will be divided in two part : one with fertilizer (5 kg of rock phosphate for 500 m²) and one without fertilzer.

MPT's and covercrops seeds REQUIREMENT

COLLECTION OF CHROMOLENA ODORATA

A collection of chromolena stick should be organized for the RAS 3 trial and for the Chromolena multiplication plot in Semboja II. This may required one day or two, collecting all Chromolena sticks on the road or in the surroundings. The Chromolena sticks to be planted should be brown.

February : collection of Chromolena sticks for a multiplication plot in Semboja II.
March : after the paddy harvest, collection of Chromolena sticks for RAS 3 farmers, see the table of distribution of sub plot.

EVALUATION OF MPT's and COVERCROPS SEEDS REQUIRED.

All MPT's and covercrops required for the trials should be bought in Sanggau, or Pontianak or collected in Semboja II (for Setaria and those which are available...). Sunario is in charge of all the purchases.

SURVEYS

IMPLEMENTATION OF FARMING SYSTEM SURVEY

Each farmer involved in RAS trials planting in Kopar, Sengoret and Sintang should be surveyed with the farming System Survey questionnaire (FSS), as well as all farmers involved in the group for budwood garden management in Sanjan and Sungei Kossak.

IMPLEMENTATION OF VILLAGE SURVEY

For the following village :
KOPAR
SENGORET
SANJAN
SUNGEI KOSSAK
PARIBANG BARU/SINTANG AREA
as well as new possible village :
PEMODIS
TRIMULIA

IMPLEMENTATION OF RAS PLOT SURVEY : RAS TRIAL FILE

For each plot RAS 1, RAS 2 and RAS 3 in all villages.
All information about planting date, history of the plot, surrounding vegetation aNd labour required on the plot.

All files should be multiplied/photocopied.

SURVEY OF NEW LOCATIONS FOR RAS IMPLEMENTATION IN SEPTEMBER 1995

Pak Sunario, Pak Suleymane and pak Asgnari will survey the potential villages for next planting programme :

- Trimulia
- Sungei Kossak
- Pemodis
- some other farmers in Sengoret
- other vilages...

Meeting with the farmers : presentation of RAS methodology : with all input and duties from each side : what do the project bring to the farmers and what the farmers should do for the correct implementation of RAS, in particular for RAS 3 with MPT's and covercrops.

2 situations :

- 1 - locations invaded with sheet Imperata (Trimulia) : the farmers want to grow rice as intercropping of RAS 2 or 3 system;
- 2 - village with normal situation like Kopar or Sengoret : we are looking for farmers with a new ladang opened in 1995 and with rice to be cropped in August 1995.

Pak Asgnari will implement the "DESA survey" also in these villages.

Semboja II

NURSERIES AND MULTIPLICATION PLOTS FOR RAS TRIALS

- 1 - Implementation of perennials nursery in SEMBOJA II

The idea is to create a stock nursery of all associated perennials trees required for RAS 2 and 3 in order to provide the farmers with the necessary plants for the next RAS planting in October, and to be able to supply them with the varieties that are not locally available. A list of the complete requirement will be done. It is assessed that we doubled the number of required trees (success rate in nursery : 50 %). Polybag and fertilizer will be purchased).

The varieties are the following :
Petai
tengkawang
Durian/Pekawai
Jengkol

Meranti
Sunghai
Belian/Medang semat
Tekam
Keladan
Other..

- 2 - implementation of multiplication plots for MPT's and covercrops.

As we need seeds or sticks of some MPT's or covercrops that are not easily available . it is suggested to establish multiplication plots in Semboja II of 1000 or 2000 m² for the following :

large scale : minimum 1000 m² :
- multiplication plot of CHROMOLENA

Two ways of multiplication may betried : by seeds and by sticks.

Small scale :
- multiplication plot of SETARIA
- multiplication plot of MUCUNA
- multiplication plot of FLEMINGIA

And any other required plot for multiplication such as Secang.

- 3 - implementation of multiplication plots of improved rice varieties.

We need a ceriain amount of improved upland rice varieties seeds for RAS 2. A multiplication plot may be done in Semboja II in order to be in a position of being able to provide the farmers with the required seeds. The seeds may come from various sources :

- IRRI (International Rice Research Institute from the Phillipines) in a collaboration programme.

- CRIFCI, Indonesian Foodcrop Research Institute, E Penot will see what are the possibilities.

- TCSDP for the "kenia" variety.

We need approximately 800 kg of seeds for September 1995.

Improved upland rice multiplication plot :

- Average yield of the multiplication plot : 1,5 tons /ha with fertilizer : a multiplication plot of 0,5 ha is required.

The seeds for kenia variety may be available immediately, we may try a multiplication plot on a small size for planting in March. If not the multiplication, plot will be planted in September 1995. The seeds will be used for the 1996 planting.

The multiplication plots may be between MPT's hedge rows, at the condtiion that there is no shading on rice, MPT's should be pruned.

- 3 - Implementation of the RUBBER budwood garden in Semboja II

680 rubber plants have been so far planted :

- 200 plants of PB 260
- 200 plants of RRIC 100
- 200 plants of BPM 1
- 80 plants of TM8

A control of stem from the grafted buds should be made every week.

WE plan to plant in **september 1995** :

- 120 suplementary plants of TM 8
- 200 suplementary plants of RRIC 100
- 200 suplementary plants of RRIM 600

All this budwood will come from GOODYEAR

- 100 suplementary plants of RRIM 600 with budwood from TCSDP

Therefore : the field should be reserved and prepared for this new planting.

FERTILIZATION OF THE BUDWOOD GARDEN

The new planting will received 400 gr of rock phosphate per tree.
The february planted trees will receive an additionnal 200 gr of rock phosphate/tree.
All trees will receive UREA fertilization later on.

Objective of this budwood garden :

We know that we can have acces to a reliable source of budwood from TCDSDP from Sintang or Sossok for the following clones : PB 260, RRIM 600 and BPM 1.
The 2 clones missing are RRIC 100 : a major clone : that's why we will have 400 plants in our budwood garden, and TM 8 : as TM 8 is not a very known clone, we will limit its diffusion to a certain number of trials.
The other clones present in our budwood garden, PB 260, RRIM 600 and BPM 1 will be later on checked for clonal purity with the CIRAD electrophoresis technique.
We will put the two source of RRIM 600 : from TCSDP and GOODYEAR in order to be able to check their respective purity.

EXPERIMENTATION IN SEMBOJA II

UPLAND RICE FOR RAS 2

UPLAND RICE SCREENING EXPERIMENTATION IN SEMBOJA II

If an agreement is found out between ICRAF and IRRI/Phillipines, a programme of improved upland rice creening experimentation may be developped for RAS 2. May be 10 to 15 varieties on a small scale (100 m² for each variety, still to be defined). A plot of 1500/2000 m² may be reserved for that experimentation with a planting in september.

LOCAL UPLAND RICE FERTILIZATION EXPERIMENTATION

A trial may be done in Semboja II in order to identify the response of various local varieties to fertilization for 3 years. This trial is aimed to identify the local varieties that may be used in RAS 2 to sustain the upland rice production in the year 2 and 3. This trial is complementary of the precedent one.

Number of varieties : 2 varieties for each cropping cycle of 3, 4, 5, 6, 7 months and more : so 8 to 10 varieties. The choice of the varieties should be made after discussions with farmers in Kopar, Sengoret and Sintang. The selction of 1 or 2 best varieties will be done accoring to the farmers' opinions.

Number of fertilization doses : 3
Initial plot area : 100 m²
Ara per variety : 600 m² ; we need 5 kg per variety.
TOTAL area of the trial : 8 x 3 x2 replications = 48 plots x 100 m² = 4800 m².

We need to collect 5 kg of each variety :

cycle 3 months : variety A and B
cycle 4 months : variety A and B
cycle 5 months : variety A and B
cycle 6 months : variety A and B
and more if necessary

A survey wiull be made for more information on local upland rice varieties.

Collection of these varieties should be made as soon as possible after harvest after discussion with farmers. In Sanggau and in Sintang area

The experimental plots may be between MPT's hedge rows, at the condtiion that there is no shading on rice, MPT's should be pruned.

These rice trials will be planted in august in Semboja II.

RAS EXPERIMENTATION ON STATION

These RAS specific on station trial may be planted in Semboja II, in a controlled situation, in order to implement a more technical research on RAS system. These trials will be planted only if they can be managed by a PhD student on ICRAF budget. Discussions are engaged with an ICRAF candidate for that purpose.

RAS 3 DEMONSTRATION PLOT in Semboja II

A 1,5 ha RAS 3 trial may be planted in Semboja II, first to test the 15 sub plots with combination of MPT's and covercrops, and second to be used as a demo-plot for further farmers involved in the research programme. A more complete research on nutrient cycling, fertility evolution and competition problem may be done by a PhD student.

The decision concerning this plot should be taken before August 1995.

RAS competition EXPERIMENTAL PLOT

A special plot may be planted in Semboja for specific competition analysis between rubber and such species as Tengkawang

These trials requires some place in Semboja and that has to be discussed with BLI.

PROGRAMME OF ACTIVITIES FOR THE SRAP FIELD ASSISTANT

1. BRI CABANG SANGGAU - KAL-BAR

NO. REKENING	: 33-20-2528. 7
N a m a	: Ir. ASNGARI
Alamat	: Jl. Dr.SURONO RT.IV Sei Sengkuang
No. KTP.	: 04.382/D/I/8/1994

Alamat BRI CABANG SANGGAU-
Jl. Jendral Sudirman - Sanggau - Kalimantan Barat.

2.

N a m a	: ASNGARI
Alamat Rumah	: Jl. Jendral Sudirman No.5 Kel.Bunut-Kec. Sanggau Kapuas, Kab.Sanggau-Kalimantan Barat. 78511

Program untuk Asngari

Dalam Pelaksanaan RAS di Kopar, Maringin Jaya, Paribang Baru
Kebun Entris di Sanjan, Sei Kosak dan Semboja 2
Persiapan Lokasi Baru (Trimulya, Maringin Jaya, Pemodis dan . . . .)

File:\icraf\progasri

No.	Kegiatan	Lokasi	Keterangan
1	2	3	4
1	Pelatihan tentang SRAP Project ke Sunaryo (Proyek Wanatani Karet Rakyat)	Semboja 1	
2	Pelatihan Pembibitan dan teknik pembibitan	Semboja 1	
3	Pelatihan Wanatani dan kebun entris – Mempelajari jenis–jenis tanaman MPT's (kaliandra, secang, lamtoro, glirisidea, akasia, sengon, setaria, chromolena, flemingia, dll	Semboja 2	
4	Diskusi teknik tentang metodologi RAS	Semboja 1	
5	Field trip ke Kopar/Sengoret/Sanjan/Sintang dengan Sunaryo 1 hari per lokasi ---> melakukan presentasi / diskusi dengan petani ---> perhatikan semua plot dengan petani	Kopar, Sanjan Maringin Jaya Paribang Baru	
6	Asngari tinggal 3 hari di semua lokasi ---> Kopar, Sengoret, Sanjan	di lapangan	
7	Asngari di Sintang untuk 2 hari di desa Paribang Baru PKRGK, 3 hari pelatihan karet dengan Pak Joko (TCSDP) Di Sintang ---> dibayar : – Transportasi, – akomodasi di petani/TCSDP, – Rp. 6.000,– per hari untuk makan	Sintang	
	Di Tempat lain ---> dengan Sunaryo melakukan identifikasi lokasi baru untuk percobaan September–Oktober 1995	Mukok, Pemodis Maringin Jaya	
8	Di Desa: – Lihat semua plot (sesuaikan peta dengan kondisi lapangan) – Cek Pohon karet: – Berapa yang tanam langsung dan berapa kurangnya – berapa ajir untuk teknik tapih dan berapa yang ditapih – Berapa bibit yang mati/rusak – Berapa bibit seluruhnya yang diperlukan – Kontrol hasil padi ladang dari plot percobaan – Jenis padi: . . . . . . – Umur panen : . . . . . . – dengan menggunakan queshioner – Implementasi tanam pohon MPT's + rumput untuk RAS 3 – Kontrol semua RAS – Survei: Berapa tenaga/buruh untuk: – tanam karet : . . . – pembibitan karet tapih: . . . – Koleksi biji pohon lain: . . . – Tanam pohon lain: . . . – Hasil panen di plot: . . . – Berapa jam per hari: . . . – Berapa hari: . . . – Berapa orang: . . .	Semua lokasi percobaan	

Time Schedule Percobaan RAS
di Sanggau dan Sintang
Bulan Pebruari – Maret 1995

Tanggal	Kegiatan	Lokasi	Keterangan
15	Diskusi SRAP Project + Persiapan Seleksi Staf ICRAF	SFDP	Ex, Eric, Andreas, Naryo.
	Kunjungan lapangan/pertemuan kelompok RAS	Sengoret	Eric, Naryo
16	Seleksi Staf ICRAF, Kunjungan Lapangan	SFDP, Semboja 2	Eric, Naryo, Asngari,
		Kopar	Bambang, Dwi H, Sujono
17	Presentasi Percobaan RAS di depan Rapat Tim		
	Pengarah BLI–HK	Hotel Carano	Eric, Naryo
18	Libur		
19	Libur		
20	Pembahasan tentang Metodologi RAS + Pelatihan	SFDP	Eric, Naryo, Sulaiman, Asngari
21	Perencanaan untuk pelakasanaan di lapangan	SFDP	Naryo, Asngari
	Presentasi percobaan RAS di depan peserta latihan	Laverna	Eric
	Pasca Panen Karet		
22	Kunjungan lapangan di kebun entris	Sei Kosak + Sanjan	Eric, Naryo, Sulaiman, Asngari
	Pembahasan hasil kunjungan lapangan	SFDP	Eric, Naryo, Sulaiman, Asngari
23	Pembahasan akhir SRAP	SFDP	Eric, Naryo, Asngari,
24	Perencanaan Kebutuhan benih pohon lain + Bahan	SFDP	Asngari
25	Libur		
26	Libur		
27	Pengecekan tanaman karet + peta + persiapan teknik	Sengoret	Asngari
28	tapih, tanam pohon lain (RAS 2, 3) dan pangan (RAS 2)	Sengoret	Asngari
01	Libur/Lebaran		
02	Libur/Lebaran		
03	Libur/Lebaran		
04	Libur/Lebaran		
05	Libur/Lebaran		
06	Melanjutkan kegiatan di atas dan mempersiapkan	Sengoret	Asngari
07	lobang tanaman	Kopar	Asngari
08		Kopar	Asngari
09		Kopar	Asngari
10	Penyusunan hasil pengecekan lapangan dan persiapan	SFDP	Asngari
11	untuk pertemuan dengan petani Paribang Baru	Sintang	Asngari
12	Pemetaan lahan, pemancangan batas untuk percobaan	Sintang	Asngari
13	dan persiapan untuk penanaman tanaman pangan	Sintang	Asngari
14	mempelajari karet unggul ke Pak Joko (TCSDP)	Sintang	Asngari
15	Pertemuan dengan petani Sengoret/persipan survei	Sengoret	Asngari + Naryo
16	Melakukan survei usaha tani + kontrol tanaman	Sengoret	Asngari + Naryo
17	Melakukan survei usaha tani + kontrol tanaman	Sengoret	Asngari + Naryo
18	Libur		
19	Libur		
20	Melakukan survei usaha tani + kontrol tanaman	Kopar	Asngari + Naryo
21	Melakukan survei usaha tani + kontrol tanaman	Kopar	Asngari + Naryo
22	Melakukan survei usaha tani + kontrol tanaman	Kopar	Asngari + Naryo
23	Penyusunan hasil survei dan kunjungan lapangan	SFDP	Asngari + Naryo
24	Libur		
25	Libur		
26	Distribusi bibit dan persiapan tanaman teknik tapih	Sengoret + Kopar	Asngari + Naryo
27	Penanaman teknik tapih di lapangan dan melanjutkan	Sengoret + Kopar	Asngari + Naryo
28	survei usaha tani	Sengoret + Kopar	Asngari + Naryo
29		Sengoret + Kopar	Asngari + Naryo
30		Sengoret + Kopar	Asngari + Naryo
31	Penyusunan hasil lapangan	SFDP	Asngari + Naryo

ANNEX 2

FARMERS' AND TRIALS LOCATIONS PLANTING MATERIAL AND OTHER MATERIAL REQUIREMENT

- 1 - TOTAL BUDGET FOR 1995 WEST KALIMANTAN

RAS on farm trials establishment cost
RAS trials distribution and areas
RAS trials : cost per type of trial : RAS 1, RAS 2 and RAS 3
Total cost for the planting material
Cost of the SRAP field staff

- 2 - PLANTING MATERIAL REQUIREMENT FOR RAS 1995 OCTOBER PLANTING

Total stump and budwood requirement from TCSDP and GOODYEAR
Number of trials and planting material requirement for 1 ha
Planting material requirement for all trials
Stump and budwood requirement
Planting material requirement for the Semboja II budwood garden

- 3 - TOTAL REQUIREMENT IN MATERIAL FOR RAS TRIALS IN 1995

In Sintang
In Sanggau

- 4 - REQUIREMENTS FOR RAS 3 TRIALS :

Perennials seeds, MPT's and covercrop seeds

- 5 - RAS 3 : SUB PLOT DISTRIBUTION PER FARMER

TOTAL BUDGET FOR 1995
WEST KALIMANTAN

RAS on farm trials establishment cost
RAS trials distribution and areas
RAS trials : cost per type of trial : RAS 1, RAS 2 and RAS 3
Total cost for the planting material
Cost of the SRAP field staff

OFT PLANTING CAMPAIGN FOR AUGUST1995
BUDGET

ACTIVITY	SELECTED CASE 4
PLANTING MATERIAL CASE 1 Budwood only CASE 2 partly stump from TCSDP CASE 3 All stump from TCSDP CASE 4 Stump from TCSDP Budwood from TCSDP Budwood from Goodyear	 4 204 000 2 100 000
TOTAL SINTANG TRIALS non included planting material	 2 408 000
SANGGAU TOTAL on farm trials cost non incuded planting material Semboja II budwood garden RAS on station Semboja II rice trials	 5 030 000 0 0 400 000
STAFF cost	5 124 000
TRAINING Seminars for farmers	1 500 000
Material	500 000
TOTAL Overhead 2;5 %	**21 266 000** 531 650
TOTAL	21 797 650
Expenses of february planting expected cost for october planting TOTAL BUDGET available balance	3 033 725 21 797 650 25 000 000 **168 625**

OFT PLANTING CAMPAIGN FOR FEBRUARY 1995

TOTAL COST
GAPKINDO West-Kalimantan budget

ACTIVITY			expenses December 94	expenses in february 1995
Budwood			0	
Budwood transportation from Medan to Pontianak			812 700	
Budwood transportation from Pontianak to Sanggau			???	
Budwood grafting				
pre-payment for 50 %			166 125	
balance payment after control				
purchases of roostocks				
Semboja I nursery				
pre-payment for 50 %			41 000	
balance payment after control				
Sintajuntak nursery				
pre-payment for 50 %			153 250	
balance payment after control				
Sukamulya nursery				
pre-payment for 50 %			171 500	
balance payment after control				
Additionnal cost for grafting				
Food and water			178 000	
Water			5 000	
transportation			0	
Gazoline			33 300	
Extra premium for 1 grafter			10 000	
Seminar for farmers				
Food			369 750	
Extra food for staff			39 000	
Accomodation			64 000	
Material				
Grafting knife			37 500	
Plastic for grafting			82 500	
Raffia			4 800	
Wood for signs			17 200	
Paint & brush			8 500	
Paint			9 600	
Planting material for RAS 3				
seeds				
polybag				
transport				
Fertilizer				
1100 kg			160 000	
Transportation			??	
Stump from Sintang				
Transportation to Sanggau			??	DEBT
		CREDIT	December	February
TOTAL/month			2 363 725	670 000
TOTAL expenses 20TH February				3 033 725
cash for next expenses in sanggau				790 000
Pre payment ans cash from GAPKINDO				
Transport/budwood		812 700		
Fertilizer		160000		
cash	december	1 850 000		
cash	february	1 000 000		
TOTAL paid		**3 822 700**		
TOTAL expenses				**3 823 725**
Balance		**(1 025)**		

ON FARM TRIALS COST OF ESTABLISHMENT for october 1995

LOCATION	Number of trial	Area per trial	TOTAL AREA OF TRIALS	cost per trial	total COST	TOTAL SINTANG	
SINTANG	**10**	**0,7**	**7**	**344 000**	**2 408 000**	**2 408 000**	SINTANG
No planting material provided							
SANGGAU	**7**	SUNGEI KOSSAK ???	**6,5**				
Stumps provided to farmers		PEMODIS/SENGORET					
		New villages or new farmers					
RAS 1	2	1	2	42 000	84 000		
RAS 1/control	1	0,5	0,5	344 000	172 000	Sanggau	SANGGAU
RAS 2	2	1	2	344 000	688 000	**trial cost**	
RAS 3	2	1	2	338 000	676 000	**1 620 000**	
						Planting material cost	
planting material cost				see table	4 204 000	**4 204 000**	
			total area				
SANGGAU	**20**		**10**				
TCSDP budwood only provided to farmers		**TRIMULIA**	AREA				
RAS 2	5	0,5	2,5	344 000	860 000		
RAS 3	5	0,5	2,5	338 000	845 000		
		SUNGEI KOSSAK or other					
RAS 2	5	0,5	2,5	344 000	860 000	**trial cost**	TOTAL SANGGAU
RAS 3	5	0,5	2,5	338 000	845 000	**3 410 000**	**5030000**
Planting material							
Budwood cost	1400000				1 400 000	**Planting material cost**	
Grafting cost	700000				700 000	**2 100 000**	
Sintang + 1995 october planting			**23,5**	ha		**TOTAL Sanggau**	
1995 February planting			**5,14**	ha		**11 334 000**	
						TOTAL ALL TRIALS	
TOTAL RAS TRIAL AREA FOR 1995			**28,64**	ha		**13 742 000**	

Budwood cost FROM TCSDP	
ha	10
plants/ha	700
Budwood/ha	140
Budwood total	1 400
in metres	
Cost 1 metre	1 000
cost grafting	700 000

BUDWOOD REQUIREMENT from TCSDSP		
PB 260	467	Sintang/Sossol
BPM 1	467	Sossok
RRIM 600	467	Sossok

RAS TRIAL DISTRIBUTION

For October planting including Sintang

	NUMBER OF TRIALS	TOTAL AREA OF RAS TRIALS
RAS 1	2	2
RAS 1/control	1	0,5
RAS 2	22	14
RAS 3	12	7
TOTAL	37	23,5
BUDWOOD GARDEN	1	
SEMBOJA		520
SANJAN		
SUNGEI KOSSAK		

RAS TRIAL DISTRIBUTION

for 1995 February planting

	NUMBER OF TRIALS	TOTAL AREA OF RAS TRIALS
RAS 1	3	1,04
RAS 1/control	1	0,43
RAS 2	5	1,14
RAS 3	6	2,53
TOTAL	15	5,14
BUDWOOD GARDEN	Number of plants	
SEMBOJA	1	680
SANJAN	1	220
SUNGEI KOSSAK	1	100

TOTAL RAS TRIAL DISTRIBUTION

for 1995 IN WEST KALIMANTAN : Sanggau and Sintang area

	NUMBER OF TRIALS		TOTAL AREA OF RAS TRIALS
RAS 1	5		3,04
RAS 1/control	2		0,93
RAS 2	27		15,14
RAS 3	18		9,53
TOTAL	52		28,64
BUDWOOD GARDEN		Number of plants	
SEMBOJA	1	1200	
SANJAN	1	220	
SUNGEI KOSSAK	1	100	

RAS TRIAL DISTRIBUTION

for 1995 SANGGAU only planting

	NUMBER OF TRIALS	TOTAL AREA OF RAS TRIALS
RAS 1	2	2
RAS 1/control	1	0,5
RAS 2	12	7
RAS 3	12	7
TOTAL	27	
BUDWOOD GARDEN		
SEMBOJA	520	
SANJAN	1	
SUNGEI KOSSAK	1	

The GAKINDO/CIRAD/ICRAF SRAP PROJECT

COST OF demo-plots ESTABLISHMENT

Rubber Agroforestry System FOR 1 HA

RAS 1 type OFT

"improved jungle rubber" RAS 1 I US $ = 2115 rp

ITEM	INITIAL COST	SHAPE	AREA in ha	NUMBER	Rupiah TOTAL COST	US $ TOTAL COST
Planting material rubber	450	Stumps	1	0	0	0
fertilizers	160	rock phosphate		200	32 000	15
Fertilizer transportation	50			200	10 000	5
Rubber stump transportation	100			0	0	0
Total					**42 000**	**19**

Planting material = rooted stump (Tapi system) 1 US $ = 2200 roupiah

Fertilizer : dosis per ha + for Tapih technique implementation

The GAKINDO/ICRAF SRAP PROJECT

COST OF demo-plots ESTABLISHMENT **SINTANG**

Rubber Agroforestry System FOR 1 HA

RAS 2 type OFT per year

Rubber + associated perenial trees + annual intercropping during rubber immature period

ITEM			INITIAL COST	SHAPE	AREA in ha	NUMBER kg or seeds	roupiah TOTAL COST	US $ TOTAL COST
Planting material			450	Stumps	1	0	0	0
fertilizers for rubber			160	rock phosphate		200	32 000	15
fertilizer for intercropping			160	rock phosphate		200	32 000	15
fertilizer for intercropping			500	urea		100	50 000	23
Fertilizer transportation			50			400	20 000	9
Rubber stump transportation			100			0	0	0
Planting material for annual foodcrop intercropping				Seeds		50	50 000	23
Planting material : perennial trees				Seeds		100	40 000	18
Herbicide (Round-up) : 4 l/year			25 000		1	4	100 000	45
Polybag			20 000			1	20 000	9
Total for 1 hectare							**344 000**	**156**

Planting material = rooted stump (Tapi system)

Improved intercropping varieties for RAS 2 are provided to the farmers
Associated perennial trees seeds are partly bought to others farmers.

The GAKINDO/ICRAF SRAP PROJECT

COST OF demo-plots ESTABLISHMENT

Rubber Agroforestry System FOR 1 HA

RAS 3 type OFT

Rubber + perennial trees + covercrops+MPT's, no intercropping

ITEM	INITIAL COST	SHAPE	AREA in ha	NUMBER	roupiah TOTAL COST	US $ TOTAL COST
Planting material	450	Stumps	1	0	0	0
fertilizers for rubber	160	rock		200	32 000	15
fertilizer for intercropping	160	rock phosphate		100	16 000	7
Fertilizer transportation	50			200	10 000	5
Rubber stump transportation	100			0	0	0
Planting material : MPT's trees		Seeds		various	60 000	27
Planting material : perennial trees		Seeds		125	40 000	18
Herbicide (Round-up) : 6 l/year the year1	25 000		1	6	150 000	68
Polybag	30 000				30 000	14
Total for 1 hectare					**338 000**	**154**

Planting material = rooted stump (Tapi system)

MPT's for RAS 3 are provided to the farmers
Associated perennial trees seeds are partly bought to others farmers.

PLANTING MATERIAL COST DEPENDING ON GRAFTING I

:ase 1	budwood purchase from TCSDP budwood and stump	**2 734 200**	Budwood only, provided directly to farmers
:ase 2	Stump from TCSDP budwood from GY to farmers	**2 837 537**	budwood GY and stump PB 260/TCSDP
:ase 3	budwood and stump Stump from TCSDP budwood from GY to TCSDP grafting cost by TCSDP Rootstock cost TCSDP	**4 248 287**	Budwood from GY grafted by TCSDP PB 260 stump by TCSDP
		selected	
:ASE 4	budwood and stump Stump from TCSDP budwood from GY to TCSDP Paiement by stumps ready to plant	**4 204 000**	

:ost/unit	**COST**	**TOTAL**	**TRANSPORT stump**	**TOTAL COST**
380	2 204 000		Sintang/Sanggau	PLANTING MATERIAL
	0			
)udwood transport	1 000 000			
rom Medan		3 204 000	1 000 000	4 204 000

UPLAND RICE TRIALS COST in SEMBOJA II

Total area	1 ha	
rice seeds + transportation		100 000
Fertilization		50 000
Labour for implementation/monitorig		150 000
Material		100 000
TOTAL		400 000

COST ESTIMATION FOR A LOCAL STAFF

in West-Kalimantan

Enumerator 1995 : 11 months only

Based in Sanggau, Bsc level

ITEM	INITIAL COST	NUMBER OF MONTH	TOTAL COST rupiah	TOTAL COST US $
HOUSING	0			0
Equipment			100 000	45
Maintenance for the motorcycle			500 000	227
Gasoline /Motorcycle	70 000	11	770 000	350
Salary 3 first months	200 000	3	600 000	273
Salary	250 000	8	2 000 000	909
Premium in december			300 000	136
TOTAL			4 270 000	1 941
Overhead :20 %			854 000	388
TOTAL			**5 124 000**	**2 329**

1 US $ = 2200 rupiah

PLANTING MATERIAL REQUIREMENT FOR RAS 1995 OCTOBER PLANTING

Total stump and budwood requirement from TCSDP and GOODYEAR

Number of trials and planting material requirement for 1 ha

Planting material requirement for all trials

Stump and budwood requirement

Planting material requirement for the Semboja II budwood garden

TOTAL TCSDP/STUMP REQUIRED

STUMP	TCSDP
PB 260	2 008
RRIC 100	
BPM 1	933
RRIM 600	1 325
TM 8	
TOTAL	**4 267**

TOTAL GOODYEAR BUDWOOD REQUIRED

BUDWOOD	GOODYEAR	
		required
PB 260		
RRIC 100	425	450
BPM 1		
RRIM 600	50	50
TM 8	50	50
TOTAL	**525**	**550**

TCSDP BUDWOOD REQUIRED for RAS
implementation in Trimula/Sei Kossak/Pemodis

BUDWOOD	TCSDP	required
PB 260	467	**500**
RRIC 100		
BPM 1	467	500
RRIM 600	467	500
TM 8		
TOTAL	**1 400**	**1 500**

TCSDP BUDWOOD REQUIRED
for stump production for SRAP

BUDWOOD	TCSDP	required
PB 260	402	**400**
RRIC 100		
BPM 1	187	200
RRIM 600	265	280
TM 8		
TOTAL	**853**	**880**

TOTAL TCSDP BUDWOOD REQUIRED
for stump production AND BUDWOODfor SRAP

TCSDP	TCSDP	required
PB 260	868	900
RRIC 100		
BPM 1	653	700
RRIM 600	732	780
TM 8		
TOTAL	**2 253**	**2 380**

NUMBER OF TRIALS

Type of trials		number of trials in ha
RAS 1	OFT	2
RAS 1 control (2 clones)	OFT	0,5
RAS 2 & 3 total :	OFT	4
RAS 2		2
RAS 3		2
RAS 2 & 3 on station	On-station	0

ESTIMATED REQUIREMENTS IN PLANTING MATERIAL FOR RAS/OFT IMPLEMENTATI SFDP/SANGGAU OCTOBER 1995

NUMBER OF ROOTSTOCKS PLANTS REQUIRED IN NURSERY PER TYPE OF TRIAL

Per hectare

Type of trials		Mean planting density /ha	Number of plants/HA required on farmers's site	losses to to transport and selection 10,00% 1,1	Planting material requirement Final number
RAS 1	OFT	750	800	880	**900**
RAS 2 & 3	OFT	550	600	660	**700**
RAS 2 & 3	On-station	550	600	660	**700**
Budwood garden/RRIM 600	On-station	200	225	248	**250**

NUMBER OF TRIALS

Type of trials		**number of trials in ha**
RAS 1	OFT	2
RAS 1 control (2 clones)	OFT	0,5
RAS 2 & 3 total :	OFT	4
RAS 2		2
RAS 3		2
RAS 2 & 3 on station	On-station	0

ESTIMATED REQUIREMENTS IN PLANTING MATERIAL FOR RAS/OFT IMPLEMENTATION IN NOVEMBER 1995 *SFDP/SANGGAU*

Case 4 : budwood purchased by RASP and nursery established by SFDP or a private

NUMBER OF STUMPS AND ROOTSTOCKS PLANTS REQUIRED IN NURSERY for all trials planted in OCTOBEI

West-Kalimantan

Type of trials OCTOBER 1995 Trials with stumps provided to farmers		**required number of plants per trial**	**number of trials in ha**	**Total number of plants requested from TCSDP** **ready to plant**
RAS 1	OFT	900	2	1800
RAS 1 control (2 clones)	OFT	700	0,5	350
RAS 2 & 3 total :	OFT	700	4	2800
RAS 2		700	2	1400
RAS 3		700	2	1400
RAS 2 & 3 total on station	On-station	700	0	0
Budwood garden	Villages	250	1	250
	Sembodja II	200	1	200
	Sembodja II	200	1	200
	Sembodja II	200	1	200
TOTAL hectarage of trials			6,5	5 800

RRIM 600, PB 260 and BPM 1for OFT planting from TCSDP.

RRIM 600 and TM 8 for budwood garden from Goodyear

RRIC 100 for OFT planting from goodyear

₹ 1995

DISTRIBUTION

number of plants required in TCSDP/nursery for budwood from GOODYEAR	**Type of clones**	**Type of planting material**	**Clones distribution**		**Number of metres budwood per clone**	**ORIGIN OF THE BUDWOOD**
0	PB260	OMAT	PB260	900		Sintang or Sossok
0	RRIM 600	OMAT	RRIM 600	900		Sossok
0	PB260	OMAT	PB260	175		Sintang or Sossok
0	RRIM 600	OMAT	RRIM 600	175		Sossok
0		OMAT	BPM 1	933		Sossok
3 000		rootstock	RRIC 100	3 000	375	Goodyear
		OMAT	PB260	933		Sintang or Sossok
0		rootstock	RRIC 100	0	0	Goodyear
		OMAT	BPM 1	0		Sossok
		OMAT	PB 260	0		Sintang or Sossok
	RRIM 600 : TCSDP	OMAT	RRIM 600	250		Goodyear
400	RRIM 600 : GOODYEAR	rootstock	RRIM 600	400	50	Sossok
400	TM 8	rootstock	TM 8	400	50	Goodyear
400	RRIC 100	rootstock	RRIC 100	400	50	Goodyear
4200						

TCSDP : 10 buds /m

GOODYEAR :8 buds/m

TOTAL REQUIREMENT OF PLANTING MATERIAL

CLONE	**ORIGIN**	**Number of TCSDP stump (budwood from TCSDP)**	**Number of TCSDP rootstock for goodyear budwood**	**Number of budwood from Goodyear** in metres
PB260	TCSDP	900		
RRIM 600	TCSDP	900		
PB260	TCSDP	175		
RRIM 600	TCSDP	175		
BPM 1	TCSDP	933		
RRIC 100	Goodyear		3 000	375
PB260	TCSDP	933		
RRIC 100	Goodyear		0	0
BPM 1	TCSDP	0		
PB 260	TCSDP	0		
RRIM 600	TCSDP	250		
RRIM 600	Goodyear		400	50
TM 8	Goodyear		400	50
*	Goodyear		400	50
	TOTAL	4 267	4 200	525

ESTIMATED REQUIREMENTS IN PLANTING MATERIAL
FOR RAS/OFT IMPLEMENTATION
IN NOVEMBER 1995 **SFDP/SANGGAU**

Case 4 : budwood purchased by RASP and nursery established by SFDP

NUMBER OF STUMPS AND ROOTSTOCKS PLANTS REQUIRED IN NURSERY for all trials planted in OCTOBER 1995

West-Kalimantan

Type of trials OCTOBER 1995 Trials with stumps provided to farmers		required number of plants per trial	number of trials in ha	Total number of plants requested from TCSDP ready to plant	DISTRIBUTION number of plants required in TCSDP/nursery for budwood from GOODYEAR	Type of clones	Type of planting material	Clones distribution		Number of metres budwood per clone	ORIGIN OF THE BUDWOOD
RAS 1	OFT	900	2	1800	0	PB260	OMAT	PB260	900		Sintang or Sossok
					0	RRIM 600	OMAT	RRIM 600	900		Sossok
RAS 1 control	OFT	700	0,5	350	0	PB260	OMAT	PB260	175		Sintang or Sossok
(2 clones)					0	RRIM 600	OMAT	RRIM 600	175		Sossok
RAS 2 & 3 total :	OFT	700	4	2800	0		OMAT	BPM 1	933		Sossok
RAS 2		700	2	1400	3 000		rootstock	RRIC 100	3 000	375	Goodyear
RAS 3		700	2	1400			OMAT	PB260	933		Sintang or Sossok
RAS 2 & 3 total on station	On-station	700	0	0	0		rootstock	RRIC 100	0	0	Goodyear
If any ICRAF budget							OMAT	BPM 1	0		Sossok
							OMAT	PB 260	0		Sintang or Sossok
Budwood garden	Villages	250	1	250		RRIM 600 : TCSDP	OMAT	RRIM 600	250		Goodyear
	Sembodja II	200	1	200	400	RRIM 600 : GOODYEAR	rootstock	RRIM 600	400	50	Sossok
	Sembodja II	200	1	200	400	TM 8	rootstock	TM 8	400	50	Goodyear
	Sembodja II	200	1	200	400	RRIC 100	rootstock	RRIC 100	400	50	Goodyear
TOTAL hectarage of trials			6,5	5 800	4200						

RRIM 600, PB 260 and BPM 1for OFT planting from TCSDP.

TCSDP : 10 buds /m

RRIM 600 and TM 8 for budwood garden from Goodyear
RRIC 100 for OFT planting from goodyear
OCTOBER 1995

TOTAL REQUIREMENT OF PLANTING MATERIAL

CLONE	ORIGIN	Number of TCSDP stump (budwood from TCSDP)	Number of TCSDP rootstock for goodyear budwood	Number of budwood from Goodyear in metres
PB260	TCSDP	900		
RRIM 600	TCSDP	900		
PB260	TCSDP	175		
RRIM 600	TCSDP	175		
BPM 1	TCSDP	933,333333		
RRIC 100	Goodyear		3000	375
PB260	TCSDP	933,333333		
RRIC 100	Goodyear		0	0
BPM 1	TCSDP	0		
PB 260	TCSDP	0		
RRIM 600	TCSDP	250		
RRIM 600	Goodyear		400	50
TM 8	Goodyear		400	50
"	Goodyear		400	50
	TOTAL	4266,66667	4200	525

GOODYEAR :8 buds/m

COLLECTION BUDWOOD GARDEN *SFDP/SANGGAU*

OCTOBER 1995

CLONES	Number of plants per clones	losses to to transport	Budgrafti success	losses due to selection in nursery		origin	
		10,00% 1,1	50,00% 2,0	20,00% 1,2			
PB 260	0	0	0	0	OFT	Goodyear	
BPM 1	0	0	0	0	OFT	Goodyear	
RRIC 100	200	220	440	528	On-station OFT	Goodyear	For Semboja 2
RRIM 600	200	220	440	528	On-station OFT	Goodyear	For Semboja 2
RRIM 600	100	110	220	264	OFT	TCSDP	For Semboja 2
TM 8	120	132	264	317	OFT	Goodyear	For Semboja 2
TM 8	80	88	176	211	OFT	Goodyear	Sanjan
TOTAL				1 848			

TOTAL REQUIREMENT IN MATERIAL FOR RAS TRIALS IN 1995

In Sintang
In Sanggau

TOTAL REQUIREMENT IN MATERIAL AND COST

Planting material non included — TOTAL Sanggau and Sintang

	RAS 1	RAS 2 + ras 1 Control	RAS 3	Budwood garden	TOTAL	To be ordered	Initial Cost	TOTAL COST
TOTAL Sanggau and Sintang	2	14,5	7	1		kg		
FERTILIZER								
Rock phosphate	400	3700	1750	260	**6 110**	**6 200**	210	1 302 000
Urea	0	1450	0	240	**1 690**	**1 700**	500	850 000
Herbicide						litre		
Total amount	0	58	42	1	**101**	**105**	25 000	2 625 000
Improved upland rice varieties								
TOTAL	0	725	0	0	**725**	**800**	1 000	800 000
MPT's and covercrops seeds								
TOTAL	0	0	450000	0	**450 000**	???		450000
Perennials seeds								
TOTAL	0	580000	280000	0	**860 000**	**0**	???	860 000
POLYBAG								562 417
							TOTAL	**7 449 417**

TOTAL REQUIREMENT IN MATERIAL AND COST

Planting material non included SINTANG

	RAS 1	RAS 2 + ras 1 Control	RAS 3	Budwood garden	TOTAL	To be ordered kg	Initial Cost	TOTAL COST
SINTANG								
hectarage of trials		7						
FERTILIZER for intercropping only		100						
Rock phosphate		**700**			**700**	**700**	210	147 000
Urea		**700**			**700**	**700**	500	350 000
Herbicide								
Round-up per trial		4				**litre**		
Total amount		28			28	**30**	25 000	750 000
Improved upland rice varieties		50						
TOTAL		350			350	**400**	1 000	400 000
MPT's and covercrops seeds								
TOTAL COST						**???**		
Perennials seeds		40 000						
TOTAL COST		280 000			280 000		???	280 000
							TOTAL	**1 927 000**

TOTAL REQUIREMENT IN MATERIAL AND COST

Planting material non included SANGGAU

SANGGAU	**RAS 1**	**RAS 2 + ras 1 Control**	**RAS 3**	**Budwood garden**	**TOTAL**	**To be ordered kg**	**Initial Cost**	**TOTAL COST**
TRIALS AND BUDWOOD GARDEN								
hectarage of trials	2	7,5	7	1				
FERTILIZER in kg for rubber and intercrops	200	400	250					
Total rock phosphate in kg	**400**	**3 000**	**1 750**	**260**	**5 410**	**5 500**	210	1 155 000
Total urea in kg		750		240	**990**	**1 000**	500	500 000
Herbicide								
Round-up per trial	0	4	6	0		litre		
Total amount in l	**0**	**30**	**42**	**1**	**73**	**75**	25 000	1 875 000
Improved upland rice varieties in kg/trial	0	50	0					
TOTAL rice in kg		**375**	**0**		**375**	**400**	1 000	400 000
MPT's and covercrops seeds/COST	0	0	60 000		cost			
TOTAL COST		0	**450 000**		450000	**???**		450000
Perennials seeds/COST	0	40 000	40 000		cost	**???**		
TOTAL COST		**300 000**	**280 000**		**580 000**	**???**	???	580 000
							TOTAL	**4 960 000**

REQUIREMENTS FOR RAS 3 TRIALS :
Perennials seeds, MPT's and covercrop seeds

SEEDS REQUIREMENT

TYPE	number of trees /locations /ha	SINTANG total area of trial RAS 2 7	*PLANTING FEBRUARY 1995* SANGGAU total area of trial RAS 1 1,04	total area of trial RAS 2 1,14	total area of trial RAS 3 2,53	*PLANTING OCTOBER 1995* SANGGAU total area of trial RAS 1 2	total area of trial RAS 2 7,5	total area of trial RAS 3 7	number of trees required	total number trees/seeds required success rate	Number of seed per kg	Number of kg required	Cost per kilo	TOTAL COST	
FAST GROWING TREES (FGT)										50,00%					
ALBIZZIA	250				633			1 750	2 383	4 765	5 000	1	60 000	60 000	
ACACIA	250				633			1 750	2 383	4 765	> 10000	1	140 000	70 000	
GMELINA	250														
TOTAL FGT supplied by SRAP					1 265			3 500		9 530					
TOTAL PERENNIALS	250	1 750		285	633		1 875	1 750	6 293	12 585					
					2 668			3 625							
SUPLIED BY FARMERS															
0	50	350							350	700					
SANGGAU 50 %	125			143	316		938	875	2 271	4 543					
SUPLIED BY SRAP															
SINTANG 80 %	200	1 400							1 400	2 800					
SANGGAU 50 %	125			143	316		938	875	2 271	4 543	cost/seed				
TOTAL SUPPLIED BY SRAP					1 859			1 813	3 671	7 343	100			734 250	
TOTAL Perennials + FGT										16 873					
POLYBAG in KG										112			5 000	562 417	
COVERCROPS					Number of kg or sticks				0	0					
									0	0					
CHROMOLENA					6 500				6 500					0	
FLEMINGIA									0	0				50 000	estimated
SETARIA									0	0					
KECIPIR									0	0				30 000	
OROK²									0	0					
MUCUNA									0	0				30 000	
									0	0					
MPT's					Number of kg or sticks			Number of k or sticks	0						
									0						
GLIRICIDIA					1 000			3 000	4 000		3 sticks/m		25	100 000	estimated
LEUCENA					1			3	4				10 000	40 000	estimated
CALIANDRA					1			1	2				10 000	20 000	estimated
SECANG					3			5	8				7 500	60 000	estimated
CASSIA SIAMEA					0			3	3		5 000		10 000	30 000	estimated
TOTAL COST														**1 786 667**	

FEBRUARY PLANTING 1995 **RAS 3**

SUB -TREATMENTS PER PLOT DISTRIBUTION and PLANTING MATERIAL REQUIREMENT

	SUB TREATMENT	Number of seeds/sticks per initial plot		Initial plot = 1000 m²			Number of plot
		Leucena	**Gliricidia** sticks	**Calliandra**	**Secang**	**Chromolena** sticks	**Flemingia**
A	**SCC pure standing**						
A1	Leucena	450					
A2	Gliricidia		450				
A3	Calliandra			450			
A4	Secang				450		
B	**covercrops pure standing**						
B1	LCC manual weeding						
B2	LCC chemical control						
B3	Flemingia						1
B4	Chromolena					1800	
C	**SCC + covercrops**						
C1	Calliandra + flemingia			170			1
C2	Chromolena + flemingia					450	1
C3	Calliandra + Chromolena			170		450	
C4	Calliandra + Chromolena + flemingia			170		450	1
C5	Caliandra + setaria			170			
		Leucena	Gliricidia sticks	Calliandra	Secang	Chromolena	Flemingia
	TOTAL	450	450	1130	450	3150	4
2	seeds per location						**AREA**
	TOTAL seeds/replication	**900**	**450**	**2260**	**900**	**3150**	0,4
0,1	Total area for Flemingia in ha						
	NUMBER OF REPLICATION						
	2						
	TOTAL REQUESTED	1800	900	4520	1800	6300	0
	TOTAL requested	**2000**	**1000**	**5000**	**2000**	**6500**	
	Number of seeds per kg		sticks	2-5000		sticks	
	Number of kg requested	1		1	3		???

RAS 3 : SUB PLOT DISTRIBUTION PER FARMER

RAS 3 SUB-PLOT DISTRIBUTION per farmer
Planting February 1995

RAS 3 only VILLAGE **KOPAR**	**CLONE**	**AREA HA**	**SUB PLOT**		**REPLICATION identification**
Jambi	PB260	0,5			
1		1000 m²	A1	Leucena	1
2		1000 m²	A2	Gliricidia	1
3		1000 m²	A3	Calliandra	1
4		1000 m²	A4	Secang	1
5		1000 m²	C1	Calliandra + flemingia	2
Sudin	RRIC 100	0,5			
1		1000 m²	C1	Calliandra + flemingia	1
2		1000 m²	C2	Chromolena + flemingia	1
3		1000 m²	C3	Calliandra + Chromolena	1
4		1000 m²	C4	Calliandra + Chromolena + flemingia	1
5		1000 m²	B4	Chromolena	2
Indi	BPM 1	0,35			
1		1000 m²	C2	Chromolena + flemingia	2
2		1000 m²	C3	Calliandra + Chromolena	2
3		1000 m²	C4	Calliandra + Chromolena + flemingia	2
Abui	BPM 1	0,44			
1		1000 m²	B1	LCC manual weeding	1
2		1000 m²	B2	LCC chemical control	1
3		1000 m²	B3	Flemingia	1
4		1000 m²	B4	Chromolena	1
5		400 m²	C5	Caliandra + setaria	1
Kai	RRIC 100	0,35			
1		1000 m²	B1	LCC manual weeding	2
2		1000 m²	B2	LCC chemical control	2
3		1000 m²	B3	Flemingia	2
4		500 m²	C5	Caliandra + setaria	2
SENGORET					
Chistianos	PB 260	0,39			
1		1000 m²	A1	Leucena	2
2		1000 m²	A2	Gliricidia	2
3		1000 m²	A3	Calliandra	2
4		1000 m²	A4	Secang	2

NOTE : the sub plot C5 is on limited area : 400 and 500 m²

NOTE 2 : each sub plot is divided in two : with and without fertilizer

dose : 100 kg/HA so 10 for 1000 m² : so 5 kg for 500 m²

ANNEX 3

SRAP field assistant contract

WORK CONTRACT
FOR LOCAL PROJECT PERSONNEL

BETWEEN :

Mr Leo Abam, GAPKINDO West-Kalimantan
Resident in Pontianak

hereafter referred to as the "employer"
on behalf of GAPKINDO West-Kalimantan for the GAPKINDO/ICRAF project "SRAP" Smallholder Rubber Agroforestry Project", implemented in West-Kalimantan

and

Mr	: Asngari
Date of Birth	: 3rd of June 1965.
Nationality	: indonesian
Residence	: Sanggau
Profession	: Assistant in Agriculture

hereafter referred as the "employee".

Both parties agree to conclude and perform this contract under the following terms and conditions :

ARTICLE 1

1.1 With effect on Thursday 16th February 1995 to the 31st December 1995 ; the employee will be engaged by the employer as a field assistant to the ICRAF scientist in charge of the SRAP research programme in West-Kalimantan, the employee being based in Sanggau as the ICRAF scientist is based in Bogor. The employee shall be mainly occupied in the following activities :
- the monitoring of the current and future on farm trials, and any other kind of trials in locations selected by the project; implemented in the province of West-Kalimantan, and in particular for those implemented in the Sanggau and Sintang areas.
- to carry out surveys in the West-Kalimantan province, and in particular farming system surveys and all type of surveys required by the research programme.
- to help and give support to the ICRAF scientist when he is present in mission in the province, as well as for any student involved in the SRAP research activities.

1.2 A probation time of 3,5 month is required from 2/16/1995 to 5/31/1995. At the end of this probation time, the employee will be definitly engaged for the time of duration of the present

contract. In the case of any problems or inadaptability to the position, the employer may decide not to enploy anymore the employee without any compensation of any kind.

The salary during the probation time is fixed at 200 000 rp/month.

ARTICLE 2

The present contract will begin the 16th February 1995 and will end the 31st of December 1995. The renewing of the contract will be decided by both parties one month before the end of the present contract. No specific compensation are expected at the end of the present contract.

ARTICLE 3

3.1 The normal working hours applicable to the employee shall be 40 hours per week.

3.2 The normal working days applicable to the employee shall be from Monday to saturday.

3.3 According to the type of work required, including meeting with farmers, during evenings or free days, such as sunday, a certain flexibility of the working period is accepted by the employee. The quality of work and the necessary conditions of the implementation of the required work, including surveying activities will be prior to the normal working hours, in particular for all activities in the fields and in the villages. If deemed necessary by the employer, and/or the ICRAF scientist in charge of the programme, the employee has to perform overtime work which is any work in excess of the time referred to 2.1 in accordance with the indonesian labour laws and regulations.

3.4 The employee is mainly engaged to work in the fields and in the villages where the SRAP research programme has developed activities. The employee accepted to stand several nights per week in these villages according to the necessity of the implementation of his activities, within the province of West-Kalimantan. The employee is fully aware of the necessity of the position to spend most of the time in the fields and in the villages where SRAP is involved.

3.5 When the employee is working in the office, hosted by SFDP/GTZ/BLI, he will work according to the working hours of the SFDP project.

ARTICLE 4

4.1 As compensation for the service performed by the employee, the employee shall receive a monthly renumeration of 250 000 rp (Two hundred fifty thousand rupiah). The salary shall increase related to the employee performances and quality, every year, after evalution and discussion between the employer and the employee. The renumeration include the basic

salary and any allowance payable according to indonesian labour regulations.

4.2 If the employee is performing his duties out of the sanggau area, he shall be entitled with a daily allowance of 6000 rp (six thousand rupiah) for any overnight out of the Sanggau area, and in particular for SRAP activities in Sintang area. No allowances are forcast for evening or nights spend in the villages in the Sanggau area.

4.3 The renumeration shall be paid out at the end of the month to which the renumeration refers by bank transfert from GAPKINDO/Pontianak.

4.4 After having passed an employment of 12 consecutive months, the employee shall be entitled to an annual bonus amounting between 0,5 and 1,5 month-renumaration according to the performances of the employee, an average bonus should be considered as the equivalent of one month of renumeration, to be paid at Chrismas or Lebaran, subject to the employee's intructions.. The amount of the annual bonus is decided by the employer according to the employee's performances..

ARTICLE 5

After having passed an employment period ot 12 consecutive months, the employee shall be entiteled to obtain a paid annual leave of 18 working days (3 weeks). Any leave has to be authorized by the employer and/or the ICRAF scientist. The employee should inform by mail or telephone/fax the employer with a minimum of 6 weeks of his holliday period.

ARTICLE 6

In the event the employee cannot perform his duties because of illness, the employee is obliged to inform the employer aNd the ICRAF scientist immediatly. If the illness lasts for more than 3 days, including Saturdays and Sundays), a writtten attest from a physician shall be produced by the employee.

ARTICLE 7

The employer has the right to change the job description of the employee according to the necesssity of the work to be done, especially due to the fact that research activities implies an evolution in the work that has to be carry out by the employee. The employee should accept any duties assigned to him deemed necessary in performing the work basically described in article 1.1

ARTICLE 8

8.1 For the duration as well as after the expiry of this contract, the employee shall not

disclose any information, material and/or secrets of the employer and the SRAP project which has come to his knowledge during the course of his duties. The employee is prohibited to make copies in any form whatsoever of any documents (letters, contracts, reports, questionnaires, transaction documents.....) relating to the employer or the SRAP project or to take them out beyond the control of the employer and the SRAP project, or to disclose their contents to any third party.

8.2 All documents are the sole property of the GAPKINDO/SRAP project. Documents and/or material and any working intrument, in particular the vehicle provided to the employee, kept by the employee under the instruction of the employer or the ICRAF scientist in charge of the project, shall be returned to the employer to the employer and the SRAP project.

8.3 A vehicle, a motorcycle, is provided to the employee for performing his duties in the fields and in the villages where the project is developping activities or intend to develop activities. This vehicle should be used only during working hours and only to perform the work. This vehicle is under the reponsability of the employee. The employer will carry out reparations and normal maintainance as long as the vehicle is used only for the work assigned to the employee. In case of any problem, accident or whaysoever, out of the normal use of the vehicle for the project, or in another places that those where the project is developping activities, the reponsability of all consequences shall be put on the employee.

8.4 For the duration of this contract, the employee is prohibited to work for or provide his services to any third party without a prior written approval by the employer. This refers also to any kind of subsidiary activity including literaly work, and including the saturdays and sundays.

ARTICLE 9

This contract will terminate in the following events :

a) Cancellation of the contract

- after the probation period of 3,5 months, the contract will be cancelled if the employee does not fit the position, according to the employer's jugement.
- The contract will be terminated by either contracting parties at the end of a month provided 8 weeks prior notice are given to this effect, by mail.

b) Discontinuation of the GAPKINDO/SRAP project :

This contract shall terminate automatically without requiring the employee to take any action of proceeding in the event of discontinuation of the SDRAP for any reason whatsoever.

c) Modification od the project :

This contract shalll terminate whenever the part of the project the employee is asssigned to is for any reason whatsoever modified or changed ans as a result the project does not require furthermore the kind of services rendered by the employee.

d) Breach of the contract :

The contract will be immediatly terminated if the employee breaches the provisions of the contyract or the law a,nd /or regulations in force.

ARTICLE 10

10.1 This contract and its consequences shall be construed and interpreted in accordance with the laws of the Republic of Indonesia.

10.2 Any matter which as not be covered in this agreement shall be regulated in separate documents of policy as from time to time applied by the employer.

10.3 The contract shall be in writing. This applies also to any subsequent alterations which shall become legally binding only if agreed upon in writing.

ARTICLE 11

The contracting partners agree that this contract shall be subject in law to the juridiction of the employer , namely Pontianak.

ARTICLE 12

The contents of this contract shall be treated confidentially by both the employee and the employer.

Pontianak the 16th February 1995

Pak Leo ABAM
GAPKINDO/Pontianak

Pak Asgnari

in annex : the job description

ANNEX 4

PRESENTATION OVERHEADS

Presentation of the SRAP programme to the SFDP/BLI seminar

Participation to a training course.

A short presentation of the SRAP project as well as a general presentation of the linkage between quality and productivity

S R A P

SMALLHOLDER RUBBER AGROFORESTRY PROJECT

PROYEK WANATANI PETANI KARET

GAPKINDO : INDONESIAN RUBBER ASSOCIATION

GABUNGAN PENGUSAHA KARET INDONESIA

ICRAF : INTERNATIONAL CENTRE FOR RESEARCH IN AGROFORESTRY

PUSAT PENELITIAN INTERNASIONAL WANATANI

CIRAD : FRENCH INTERNATIONAL CENTRE FOR RESEARCH FOR DEVELOPMENT

PUSAT PENELITIAN INTERNASIONAL PERANCIS UNTUK PENGEMBANGAN

ORSTON : FRENCH RESEARCH INSTITUTE FOR OVERSEAS DEVELOPMENT

INSTITUT PENELITIAN PERANCIS UNTUK PENGEMBANGAN

LOCAL PARTNER:

SFDP/BLI : SOCIAL FORESTRY DEVELOPMENT PROJECT/

BALAI LATIHAN DAN INFORMASI

TCSDP (DISBUN) : TREE CROP SMALLHOLDER DEVELOPMENT PROJECT

TARGET : PETANI KARET NON–PROYEK

OBJECTIVE : IDENTIFIKASI R A S (RUBBER AGROFORESTRY SYSTEM)

BASED ON KARET

DENGAN PERCOBAAN PETANI + PENDEKATAKAN PARTISIPASI +
SISTEM SURVEI RUMAH TANGGA

RUBBER BASED SYSTEMS WITH
AGROFORESTRY PRACTICES

– BIAYA DAN TENAGA KERJA SEDIKIT – SEDANG
–––––> INPUT SEDIKIT – SEDANG

– HASIL TINGGI: MEMPERBAIKI PRODUKTIVITAS KARET DAN
MENGGABUNGKAN TANAMAN PANGAN

PERCOBAAN DI SEMBOJA 2 + KEBUN ENTRIS

IMPLEMENTASI :
– 5 HA OF TRIAL WITH 13 PETANI (KOPAR DAN SENGORET)
– 7 HA OF TRIAL WITH 10 PETANI (SINTANG)
– PENELITIAN DENGAN PETANI (SANJAN)
– 10 HA OF TRIAL FOR PLANTING IN SANGGAU AREA IN ODDER

SUMBER ANGGARAN:
– GAPKINDO PUSAT
– GAPKINDO PONTIANAK
– ICRAF

ADP/USAID funding ⇒ BLI training for 1997/98

RELATION BETWEEN QUALITY AND PRODUCTIVITY :

CASE STUDY : In south-Sumatra ; Palembang 1994 :

RUBBER PRICE

SLAB of bad quality : 450 rp/kg DRC 30 % price DRC 100 : 1500 rp/kg

SLAB of medium quality 750 rp/kg DRC 50 % price DRC 100 : 1500 rp/kg

SLAB of good quality 1200 rp/kg DRC 60 % price DRC 100 : 2000 rp/kg

PRODUCTION

	PRODUCTION KG/HA	VALUE OF THE PRODUCTION rp
HUTAN KARET : karet lokal	500	750 000 rp
CLONAL PLANTATION klon	1500	3 000 000 rp

INCENTIVE ?

GOOD QUALITY WITH POOR PRODUCTIVITY = POOR INCENTIVE
the case of hutan karet

GOOD QUALITY WITH GOOD PRODUCTIVITY = VERY GOOD INCENTIVE
The case with adoption of rubber clones

INCENTIVE TO QUALITY IS DEFINITELY LINKED WITH HIGH PRODUCTIVITY

KEY FACTORS FOR PRODUCTIVITY :

HIGH PRODUCTIVITY = ADOPTION OF CLONES

MANAGEMENT: project type : NES SRDP/TCSDP

R A S Rubber Agroforestry System

CONSTRAINT : related to LEVEL OF INPUT

access to clone CASH OR CREDIT CONTRAINT

Management : LABOUR CONSTRAINT

CURRENT SITUATION :

HUTAN KARET : low input but low productivity, assessible to all farmers

OR

PROJECT TCSDP LIKE : high input AND HIGH PRODUCTIVITY : accessible only to few farmers (10 % of the total number of rubber smallholders)

ALTERNATIVE

R A S system : SYTEM WANATANI KARET RAKYAT

MEDIUM INPUT but HIGH PRODUCTIVITY

PARTIAL APPROACH

ADAPTIVE RESEARCH : ICRAF/GAPKINDO SRAP project

PROJECT INPUT

CLONE BUDWOOD
LOW LEVEL OF FERTILIZER
SEEDS OF PERENNIALS NON LOCALLY AVAILABLE
SEEDS OF FAST GROWING TIMBER TREES
SEEDS OF MPT's AND COVERCROP
SEEDS OF IMPROVED UPLAND VARIETIES

FARMER'S INPUT

LABOUR
LOW TO MEDIUM CASH
CLONES NURSERY
ASSOCIATED PERENNIALS NURSERY

OBJECTIVE / OUTPUT :

HIGH PRODUCTIVITY ——————> INCOME
——————> QUALITY

AGROFORESTRY ——————> INCOME DIVERSIFICATION
RUBBER TIMBER FRUITS RATTAN

——————> POSITIVE OUTPUT ON

ENVIRONMENT
BIODIVERSITY

CONDITIONS OF SUCCESS :

ADOPTION OF CLONES AT LOW COST ——> DIFFUSION OF BUDWOOD

LOW TO MEDIUM LEVEL OF MANAGEMENT WITH AGROFORESTY PRACTICES

GOOD IMPACT ON ENVIRENMENT AND BIODIVERSITY

-----> SELECTION OF CLONES ABLE TO COMPETE WITH NATURAL FOREST REGROWTH RAS 1

----> INTERCROPPING RAS 2

----> COMBINATION BETWEEN COVERCROPS AND MPT'S for soil protection. RAS 3

LOW LEVEL OF LABOUR INVESTED BY THE FARMER

MEDIUM COST / LOW TO MEDIUM LEVEL OF INPUT : FERTILIZER
LOW COST OF PLANTING MATERIAL

ANNEX 5

surveys questionnaires and RAS plot files

SFDP West-Kalimantan field trip report
February 1995

VILLAGE RECONNAISSANCE SURVEY

SRAP VILLAGE SURVEY

SURVEI DESA

FEBRUARY 1995

MAIN TOPPICS

VILLAGE HISTORY/SEJATARA DESA ATAU DUSUN

MAIN OUTPUT/HASIL YANG UTAMA YANG DIJUAL
barang untuk dijual :

Karet, kayu, buah, paddi, palawija.....
Lain

MAIN INPUT for agricultural production : /MASUKAN PODOK UNTUK PRODUKSI PERTANIAN

Planting material/klon OMAT, entrys : karet, paddi bidji, pohon lain.....
origin/dari mana : proyek, pribadi, pemerintah, pasar, penyatur....
dan jenis, harga.....

herbicide, round-up, lain....
Pesticids :
tools : yang mana...
fertilizer : pupuk : urea, TSP, Rock phosphate, KCL, lain...

Acid for coagulation/assam untuk karet koagulasi...

kayu : untuk rumah....

Lain:

SRAP Village survey

PRICE EVOLUTION/TABEL PERKANBANGAN HARGA
Per kilo atau harus bilang apa....

	BULAN											
BARANG	1	2	3	4	5	-	7	8	9	10	11	12
PADDI												
karet A												
karet B												
karet C												
palawija												
kacang												
jaggung												
.....												
...												
...												
cabe												
BUAH												
durian												
tengkawang												
rambutan												
duku												
manggis												
banana												
nanas												
cempedak												
buah lain												
.....												

.....												
kayu												
.....												
....												
.....												

PANDUAN PENGAMBILAN DATA SEKUNDER DAN PEDOMAN PELAPORAN.

I. Letak Administrasi Daerah.

I.1. Perbatasan daerah secara Administrasi dan Alam.

Sebelah Utara berbatasan dengan Desa/Kec./Kab. ..... dan Desa .....;
Selatan -"- dengan Desa/Kec./Kab. ..... dan Desa .....
Timur -"- dengan Desa/Kec./Kab. ..... dan Desa .....
Barat -"- dengan Desa/Kec./Kab. ..... dan Desa .....

- Sebutkan batas-batas alam (gunung, sungai, lembah sesuai dengan karakteristik perbatasan) untuk masing-masing lokasi.

- Sebutkan keadaan jumlah dan jenis prasarana dan sarana (jalan dan kendaraan) untuk mencapai lokasi survey.

- Sebutkan jarak lokasi ke Ibukota Kecamatan dan Kabupaten.

I.2. Luas Daerah.

- Luas daerah secara geografi :
  Sebutkan luas daerah survey dengan perincian :

  1. Luas Hutan ..... Ha.
  2. Luas Perkebunan ..... Ha.
  3. Luas Sawah ..... Ha.
  4. Luas Pekarangan ..... Ha.
  6. Luas lain-lain (kuburan dsb.) ..... Ha.
  5. Luas Tegalan. ..... Ha.

- Luas daerah Agraris ?
  Sebutkan berapa Ha dan berapa % dari luas total daerah.

- Uraikan keadaan umum tentang
  Hutan (sekunder, primer, alang-alang dsb.), Perkebunan (rakyat, PTP dsb), Sawah (tehnis, ½ tehnis, tadah hujan dsb.), Pekarangan (sudah/belum dimanfaatkan secara optimal, apa-apa saja comoditi pekarangan dan sebutkan % tase dari luas yang ditanami).

II. Keadaan alam Daerah & Tata Guna Tanah.

II.1. Topografi.

- Sebutkan keadaan umum topografi lokasi.
- Sebutkan ketinggian lokasi dari permukaan laut.
- Klasifikasika ketinggian tiap daerah dengan ciri tanaman yang dibudidayakan rakyat.
- Berikan ulasan tentang kondisi tersebut (evaluasi).

II.2. Jenis Tanah :

- Sebutkan ada berapa jenis tanah pada lokasi survey.
- Tiap-tiap jenis sebutkan strukturnya apa, pHnya berapa, % kandungan bahan organiknya dan kemampuan produksinya bagaimana(rendah, sedang, tinggi) dan sebutkan Tekstur tanahnya (lempung, lempung bergeluh, berpasir dst.).

II.3. Keadaan iklim :

Karena keadaan iklim daerah sebagian besar banyak ditentukan oleh curah hujan, maka ambillah data curah hujan saja (minimal 10 tahun yang tidak ada cacatnya yang baik adalah 30 tahun).

- Berapa mm/tahun schemidt.
- Olahlah berdasarkan schemidt ferguson.
- Hitung Nilai Q
- Tentukan type iklimnya.

II.4. Penggunaan Tanah.

- Seperti pada poin II.2 dan beri ulasan tentang keagrariaan daerah, sistim perladangan berpindah, berapa pertambahannya tiap tahun, terangkan sistim adat yang mendorong timbulnya perladangan.
  Uraikan kemungkinan-kemungkinan penanggulangan dilihat dari kelonggaran adat setempat, rencana-rencana pemerintah dan lain-lain yang berhubungan dengan penggunaan tanah.

III.1. Jumlah penduduk dan tingkat pertambahannya. (data kependudukan)

- Cari data kependudukan selama 10 tahun, yang ada perincian laki-laki dan perempuan.
- Bandingkan tingkat pertambahan dengan propinsi dan tingkat nasional.
- Analisa dari data itu apabila ada yang menyolok (Tingkat pertambahan = yang lahir - yang mati + yang datang - yang pergi).
- Analisa dari data kependudukan (data migrasi) yaitu jumlah yang keluar desa/kedatangan dari desa lain apakah migrasi musiman atau tahunan, atau tak menentu. Dari data migrasi cari % tase tenaga kerja untuk sektor apa saja (sawah, perkebunan atau industri).

III.2. Kepadatan penduduk berdasarkan luas tanah

- Dari poin I.2 dibagi dengan poin III.1
  (Man land ratio untuk geografi dan agraris).
- Dan lain-lain karakteristis yang berhubungan dengan penduduk dan luas tanah (misal luas dan pertambahan alang-alang akibat perladangan berpindah).

III.3. Komposisi penduduk berdasarkan umur dan jenis kelamin (cukup 1 tahun terakhir).

- Cari data kependudukan tersebut
- Klasipikasikan dengan rank umur (0-4, 5-14, 15-24, 25-55 dan diatas 55 tahun).
- Buat piramida penduduk.
- Dari data itu dapat dilihat potensi tenaga kerja berikan ulasan tentang potensi tersebut.

III.4. Tingkat kelahiran dan Kematian.

- Susun data selama 10 tahun bagaimana selisih kelahiran dan kematian (Quantum & Prosentase)
- Hubungkan dengan data KB (pertambahan aseptor)
- Hubungkan dengan data produksi pertanian daerah.

III.5. Tingkat pendidikan.

- Susun berdasarkan quantum dan % tase (cukup 1 tahun).
- Susun data mulai dari tingkat Akademi sampai pada Buta Huruf, yang belum sekolah dan tidak sekolah (oukup data tahun terakhir).
- Ulas dan kaitkan dengan poin III.6.

III.6. Penduduk berdasarkan mata pencaharian.

- Sebutkan jumlah penduduk berdasarkan mata pencaharian (dalam kwantum dan %).
- Ulas dengan mengaitkan dengan usaha perkebunan.

Catatan : Poin III.I; III.2; III.3; III.5 dan III.6 jumlah penduduknya harus klop (sama).

IV. Prasarana (infra struktur) dan Sarana.

IV.1. Jumlah sekolah.

- Berapa jumlah sekolah di lokasi survey
- Berapa ratio guru dan murid.
- Cari juga data pendidikan masyarakat yang tidak formal (Pemberantasan Buta Huruf, Kursus-kursus dll.).
- Ulas tentang data kwantitatif & kwalitatif yang diperoleh.

IV.2. Jumlah Prasarana peribadatan.

- Jenis dan jumlahnya
- Materi apa saja yang sering disampaikan dalam membina masyarakat (dalam Dakwah, aksi masyarakat, kelompok pengajian dsb).

IV.3. Jalan. (mulai dari desa)

- Berapa panjang jalan. (desa, kecamatan, kabupaten, propinsi)
- Bagaimana kondisi jalan (klas berapa)
- Angkutan sungai, ferri, klotok dan perbandingan dengan angkutan jalan raya.
- Cari data kendaraan dalam jumlah dan frekwensinya ke Kecamatan dan Kabupaten.
- Dll. yang berhubungan dengan jalan dan angkutan.

IV.4. Pasar.

- Berapa jumlah pasar dan jenis pasar
- Berapa frekwensi (1x, 2x, tiap hari)
- Bagaimana dengan pasar lelang karet
- Uraikan tentang sistim pemasaran komoditi pertanian secara umum.

Catatan : Yang dimaksud dengan pasar disini bukan dalam pengertian tempat orang jual beli saja, tapi juga peristiwa bertemunya penjual dan pembeli (bisa tidak tertentu tempatnya) yang mencakup semua aspek suply dan demand.

IV.5. Puskesmas/ Balai Pengobatan

- Uraikan bagaimana masyarakat memanfaatkan Puskesmas.
- Jumlah dokter, perawat, bidan yang ada
- Jenis dan jumlah penyakit yang umum dialami masyarakat
- Perkembangan/penurunan jumlah penderita
- Beri ulasan tentang hal-hal yang berhubungan dengan kesehatan.

IV.6. Angkutan Umum.

- Idem dengan poin IV.3.
- Uraikan lebih detail.

V. Kelembagaan.

V.1. Organisasi (LKMD, PPW, Karang Taruna dll).

- Beri ulasan tentang organisasi masyarakat dan kemungkinan peluang dalam pengembangan masyarakat
- Ulas tentang peranan pimpinan formil dan tidak formil dalam organisasi masyarakat.

V.2. Kelompok Sosial.

- Uraikan tentang kelompok-kelompok sosial yang ada di desa survey.

V.3. Penyuluhan.

- Ada tidaknya Balai Penyuluhan Pertanian
- Jumlah penyuluh dan keahliannya
- Materi yang disuluhkan
- Tanggapan masyarakat (~~grouping interview~~)
- Frekwensi kunjungan dsb.

V.4. Koperasi.

- Jumlah dan jenis koperasi yang ada
- Berapa omset perdagangan koperasi (tingkat perputaran)
- Perkembangan sisa hasil usaha
- Alokasi sisa hasil usaha
- Ulas tentang peranan Koperasi dalam menunjang kemakmuran masyarakat
- Dan lain-lain.
- Jumlah anggota, Sejarah perkembangan Koperasi.

VI. <u>Tata Niaga</u>.

(Terlampir).

SFDP West-Kalimantan field trip report
February 1995

FARMING SYSTEM SURVEY

Farming system survey

GAPKINDO/ICRAF SRAP

FARMING SYSTEM SURVEY
PETANI SURVEI

Nama petani :
Desa :
Dusun :
Kecamantan :
Kabupaten :
Propinsi :

Nama kelompok tani :
Alamat :

Pewawancara :
tanggal wawancara :

FEBRUARY 1995

Farming system survey

BIODATA PETANI DAN KELUARGANYA/Farmer's identity and family

Nama petani/name :
Umur/age :
Pendidikan/level of education :
Pengnasaan bahasa/languages :

status kependudukan : asli/local : transmigrasi/transmigrant :

/status Dayak/jawa/malayu/lain Dayak/jawa/malayu/lain
Nama proyek transmigrasi

IDENTITAS ANGGOTA KELUARGA RESPONDEN
/Family situation

STATUS	ACTIVITASI	UMUR /age	PENDIDIKAN TERAKHIR Last level of education	MATA PENCAHARIAN /status	
				POPOK /major	SANPING AN /Minor
SUAMI					
ISTRI/Wife					
ANAK 1/child					
ANAK 2					
ANAK 3					
ANAK 4					
ANAK 5					
LAIN LAIN/Other					
LAIN LAIN					

Isikan : BH = 0 SD = 1 ACTIVITASI :Petani = 1 Dagang = 2

SMP = 2 SMA 3 buruh tani = 3 buruh bangunan =4

PEMILIKAN LAHAN

JENIS KARET		LUAS (ha)	JARAK DARI RUMAH Km Jam	KETERANGAN
PROYEK KARET	TM			
nama proyek	TBM			
RAS KARET	TM			
NON PROYEK KARET				
HUTAN KARET	TM			
pakai karet local	TBM			
	Tua/Rusak			
KEBUN KARET	TM			
pakai karet unggul	TBM			

TM (belum produksi, yang muddah) **TBM (ada produski, yank tua)**

TEMBAWANG/pulau bua

	UMURNYA	LUAS (ha)	JARAK DARI RUMAH	KETERANGAN
1				
2				
3				
4				
lain				

PEKARANGAN
BUAH BUAHANdi dekat rumah

LUAS (ha)	JARAK DARI RUMAH Km Jam	KETERANGAN	JENIS yang DITANAM

LADANG sept 1994/95 panen Mei.

	Status tanah	Luas (HA)	Ditanam tahun	jenis tanaman	Jarak dari rumah KM	Jam
1						
2						
3						
4						

SAWAH 1994 Paddi : Jenis Waktu panen.

	Status tanah	Luas (HA)	Ditanam tanam	. jenis · Paddi · waktu panen . produksi 1994	Jarak dari rumah KM	Jam
1						
2						
3						

BUA BUAHAN
DURIAN
RAMBUTAN
DUKU
CEMPEDAK
NANGKA
TENGAWANG
JENGKOL
TANKILL/MLINJO
PETAI
MANGGIS
MANGA

LAIN (apa ???)

KAYU	**UNTUK TAHUN** 1994				
	UNTUK BANGUNAN	UNTUK DIJUAL	HARGA	BERAPA DIJUAL	NILAI PRODUKSI
KARET					
SUNGHAI					
BELIAN					
KELADAN					
NYATU					
TEMPUI					
TEKAM					
OMANG					
LAIN (APA ???)					

LAIN-LAIN

V. PENGOLAHAN ~~BOKAR~~ Bokar

1. Hasil sadapan lateks diolah menjadi:

   a. Slab tebal b. slab tipis c. sit angin d.....

2. Biaya pengolahan

   Rata-rata
   Rataan lama waktu setiap kali pengolahan bokar: ..... jam

   Jenis pembeku yang digunakan: .....

   Penggunaan pembeku per bulan: ..... botol

   Harga pembeku: Rp ..... per botol (isi botol ..... ml)

   Rata-rata
   Rataan penggunaan pembeku per botol untuk ..... kg bokar

VI. PENYIMPANAN BOKAR

   Rata-rata
1. Rataan lama penyimpanan bokar sebelum dijual: ..... hari
2. Tujuan penyimpanan:

   a. Mencapai berat optimum

   b. Menunggu hari kalangan

   c. Menunggu harga tinggi

   d. .....

3. Jenis fasilitas penyimpanan: .....

VII. PEMASARAN BOKAR

1. Frekuensi/waktu pemasaran bokar:

   a. Harian, b. Mingguan, c. Dua mingguan, d. Bulanan, e. .....

2. Berat bokar per penjualan: ..... kg

   Umur bokar termuda yang dijual : ..... hari
   Rata-rata kadar air dalam karet : ... %.
   Rataan Taksasi KKK : ..... %

3. Harga bokar yang diterima petani: Rp ..... per kg

   Bagaimana tata cara sistem penentuan bokar petani ?

   .....

   (Potongan basi untuk bokar mutu rendah: .....)

4. Pembeli bokar:

   a. Pedagang desa sendiri, b. Pedagang desa lain, c. Pedagang besar d. Pabrik e. .....

   Kebebasan pemasaran bokar:

   a. Bebas

   b. Terikat ke pedagang tertentu (Kenapa? .....)

5. Apakah petani harus mengeluarkan biaya angkut ? a. Ya (Rp .... per kg) b. Tidak.
6. Sistem pembayaran dari penjualan bokar ?
   a. Dibayar langsung saat menjual
   b. .....

VIII. LAIN-LAIN

1. Apakah sistem pemasaran yang berlaku sudah dianggap efisien ?
   a. Ya
   b. Tidak (Apa upaya untuk meningkatkan efisiensinya ?) .....
   .....
2. Pendapat petani tentang sistem lelang
   Berapa skala penjualan lelang yang efisien ? .....
   Bagaimana kesan petani terhadap aturan main pelelangan ? .....
   .....
3. Apakah selama ini petani telah melaksanakan upaya peningkatan mutu bokar ? .....
   .....
4. Apakah petani masih melaksanakan pengelolaan kebun dengan sistem bagi hasil .....
5. Apakah sistem kredit kebutuhan pokok dan uang dari pedagang masih ada ? .....
   Apakah petani masih ikut mempraktekannya ? .....
   Bagaimana pengaruh sistem ini terhadap harga kebutuhan pokok dan bokar ? .....
6. Penerimaan petani dari sumber lain : Rp ...../bl

CATATAN LAIN-LAIN

III. KEADAAN PENGUASAAN TANAH

statut foncière

Type de parcelle Macam tanah	Status[a] tanah	Luas tanah (ha)	Jarak dari rumah[b] Km	Jam
			distance de la maison km	hours
parcelle vivrière 1. Lahan pangan :				
jardin 2. Pekarangan :				
Plantete 3. Perkebunan :				
Hévéa in project - Karet proyek				
Hevea non project - Karet non proyek				
fruitière - Buah-buahan				
~~Betaille~~ Betail 4 Peternakan :				

Isikan : [a]Hak milik = 1 propriétaire
Sewa = 2 loué
Sakap = 3 faire valoire

[b]Isikan beberapa km dan waktu diperlukan menuju lahan
donnez combien km et heure necessaires pour aller au terrain.

VI. PERKEBUNAN Plantation.

A. Pendapatan income

Prix unitaire

Type de culture Jenis tanaman	Produksi[a] (satuan) Producte (unité)	Harga per satuan (Rp)	Nilai produksi Valeur de la Producte (Rp)
Hévéa project 1. Karet proyek			
Hevea non project 2. Karet non proyek			
3.			
4.			

Isikan : [a]Satuan ukuran : liter, kg, ...
donnez : unité : litre, kg, ...

type of product - RSS
- slab → thickness
- latex min 8

B. Biaya Produksi cost of products

1. Karet proyek
Hévéa project

Jenis Biaya Type	Jumlah[a] (satuan) Somme (unité)	Harga per satuan (Rp) Prix unitaire	Nilai biaya Valeur de (Rp)
a. Bibit planting material			
b. Pupuk : Urea engrais			
TSP			
KCl			
Kieserite			
.....			
.....			
c. Pestisida : Pesticides			
.....			
.....			
d herbicide			
Presence of Impots TVS/NP			
d. Tenaga kerja : ~~Labour~~ Mandays Household		extend labs	Cost
- Mengolah tanah Labour			
- Pembibitan Nursery			
- Penanaman plantation			
- Penyiangan weeding			
- Pemupukan fertilisation			
- Pemberantasan control Hama & Penyakit maladie			
- Penyadapan Saignée			
- Pengolahan lain			
e. Alat dan Bahan : tools			
- Cangkul hoe			
- Parang machette			
- Pisau sadap/ couteau de saignée			
- Ember Chau.			
-			
-			
-			
-			
- Bahan pembeku coagulateur			
-			
Jumlah Total			

Isikan : a) Satuan ukuran : Kg, Liter, HOK, ...

Rubber non project

2. Karet non proyek

Jenis Biaya		Jumlah[a] (satuan)	Harga per satuan (Rp)	Nilai biaya (Rp)
a.	Bibit			
b.	Pupuk : Urea			
	TSP			
	KCl			
	Kies			
	.....			
	.....			
c.	Pestisida :			
	.....			
	.....			
	.....			
	.....			
d.	Tenaga kerja :			
	- Mengolah tanah			
	- Pembibitan			
	- Penanaman			
	- Penyiangan			
	- Pemupukan			
	- Pemberantasan Hama & Penyakit			
	- Penyadapan			
	- Pengolahan			
e.	Alat dan Bahan :			
	- Cangkul			
	- Parang			
	- Pisau sadap			
	- Ember			
	-			
	-			
	-			
	-			
	- Bahan pembeku			
	-			
	J u m l a h			

Isikan : [a]Satuan ukuran : Kg, Liter, HOK, ...

3. .....

	Jenis Biaya	Jumlah[a)] (satuan)	Harga per satuan (Rp)	Nilai biaya (Rp)
a.	Bibit			
b.	Pupuk : Urea			
	TSP			
	KCl			
	Kies			
	.....			
	.....			
c.	Pestisida :			
	.....			
	.....			
	.....			
	.....			
d.	Tenaga kerja :			
	- Mengolah tanah			
	- Pembibitan			
	- Penanaman			
	- Penyiangan			
	- Pemupukan			
	- Pemberantasan Hama & Penyakit			
	- Penyadapan			
	- Pengolahan			
e.	Alat dan Bahan :			
	- Cangkul			
	- Parang			
	- Pisau sadap			
	- Ember			
	-			
	-			
	-			
	-			
	- Bahan pembeku			
	-			
	J u m l a h			

Isikan : [a)]Satuan ukuran : Kg, Liter, HOK, ...

V. TANAMAN PANGAN culture vivriere

A. Pendapatan income

Jenis Tanaman Typle de culture	Produksi a) (satuan) Producte	Harga per satuan (Rp) Prix unitaire	Nilai Produksi Valeur de la producte (Rp)
1. P a d i Riz			
b. Jagung mais			
c. Ubi kayu Manioc			
d.			
J u m l a h Total			

Isikan : a) Satuan ukuran : Kg, kaleng, tongkol, ...

FRUIT production origin Ltd / self-supply Sales & value Total

- from Home garden
- from JR
- from Tembawang

- DURIAN
- Duku
- Rambutan
- Cempedak
- Jackfruit
- tangkawang

- Jengkol
- Kayu'il
- Petai
- other

other Tree crop.

- coffee

B. Biaya Produksi cost of Products

1. P a d i Riz

Jenis Biaya	Jumlah[a)] (satuan)	Harga per satuan (Rp)	Nilai biaya (Rp)
a. Bibit Seed.			
b. Pupuk : Urea Urée.			
engrais TSP			
KCl			
Kies			
.....			
.....			
c. Pestisida : Pesticide			
.....			
.....			
.....			
.....			
d. Tenaga kerja :			
- Mengolah tanah			
- Persemaian			
- Tandur/tanam plantate			
- Penyiangan weeding			
- Pemupukan fertilisate			
- Pemberantasan controle Hama & Penyakit des maladies			
- P a n e n récolte			
- Pengolahan			
e. Alat dan Bahan : materiels.			
- Cangkul hoe			
- Parang machette			
- Bajak Tracte animale			
- Arit ?			
-			
-			
-			
-			
-			
-			

J u m l a h Total _____

Isikan : [a)]Satuan ukuran : Kg, Liter, HOK, ...

2. Jagung Mais

Jenis Biaya		Jumlah[a)] (satuan)	Harga per satuan (Rp)	Nilai biaya (Rp)
a.	Bibit			
b.	Pupuk : Urea			
	TSP			
	KCl			
	Kies			
	.....			
	.....			
c.	Pestisida :			
	.....			
	.....			
	.....			
	.....			
d.	Tenaga kerja :			
	- Mengolah tanah			
	- Persemaian			
	- Tandur/tanam			
	- Penyiangan			
	- Pemupukan			
	- Pemberantasan Hama & Penyakit			
	- P a n e n			
	- Pengolahan			
e.	Alat dan Bahan :			
	- Cangkul			
	- Parang			
	- Bajak			
	- Arit			
	-			
	-			
	-			
	-			
	-			
	-			
	J u m l a h			

Isikan : a)Satuan ukuran : Kg, Liter, HOK, ...

3. Ubi kayu Manoa

Jenis Biaya	Jumlah[a)] (satuan)	Harga per satuan (Rp)	Nilai biaya (Rp)
a. Bibit			
b. Pupuk : Urea			
TSP			
KCl			
Kies			
.....			
.....			
c. Pestisida :			
.....			
.....			
.....			
.....			
d. Tenaga kerja :			
- Mengolah tanah			
- Persemaian			
- Tandur/tanam			
- Penyiangan			
- Pemupukan			
- Pemberantasan Hama & Penyakit			
- P a n e n			
- Pengolahan			
e. Alat dan Bahan :			
- Cangkul			
- Parang			
- Bajak			
- Arit			
-			
-			
-			
-			
-			
-			
J u m l a h			

Isikan : a)Satuan ukuran : Kg, Liter, HOK, ...

4. .....

Jenis Biaya	Jumlah[a)] (satuan)	Harga per satuan (Rp)	Nilai biaya (Rp)
a. Bibit			
b. Pupuk : Urea			
TSP			
KCl			
Kies			
.....			
.....			
c. Pestisida :			
.....			
.....			
.....			
.....			
d. Tenaga kerja :			
- Mengolah tanah			
- Persemaian			
- Tandur/tanam			
- Penyiangan			
- Pemupukan			
- Pemberantasan Hama & Penyakit			
- P a n e n			
- Pengolahan			
e. Alat dan Bahan :			
- Cangkul			
- Parang			
- Bajak			
- Arit			
-			
-			
-			
-			
-			
-			
J u m l a h			

Isikan : [a)]Satuan ukuran : Kg, Liter, HOK, ...

VI. PETERNAKAN Bétail

A. Pendapatan income:

Jenis Ternak	Jumlah yang dipelihara (ekor) tête	Produksi: Anak ekor tête	Anak Rp	Tambahan berat Kg	Tambahan berat Rp	Susu Ltr litre	Susu Rp	Jumlah nilai produksi (Rp)
1. Sapi Boeuf								
2. Babi porc								
3. Kambing								
4. Ayam poulet								
5.								
Jumlah Total								

B. Biaya Produksi Ternak cost of Product

1. Sapi Boeuf

Jenis biaya cost type	Jumlah yang digunakan (satuan)[a]	Jumlah yang dibeli/dibayar (satuan)[a]	Nilai yang dibeli/dibayar (Rp)
a. Bibit			
b. Makanan nourriture			
c. Obat-obatan :			
.....			
d. Tenaga Kerja : Pemeliharaan			
.....			
e. Alat-alat : Kandang			
.....			
f. Lain-lain			
Jumlah			

Isikan : [a] Satuan ukuran : Ekor, Liter, Kg, HOK, ...

2. Babi / pork

Jenis biaya	Jumlah yang digunakan (satuan)[a]	Jumlah yang dibeli/dibayar (satuan)[a]	Nilai yang dibeli/dibayar (Rp)
a. Bibit			
b. Makanan			
c. Obat-obatan :			
.....			
.....			
d. Tenaga Kerja :			
Pemeliharaan			
.....			
e. Alat-alat :			
Kandang			
.....			
f. Lain-lain			
Jumlah			

3. Kambing / chevre

nombre utilisé (unité) — nombre achetés/payés — valeur achetée/payée

Jenis biaya	Jumlah yang digunakan (satuan)[a]	Jumlah yang dibeli/dibayar (satuan)[a]	Nilai yang dibeli/dibayar (Rp)
a. Bibit			
b. Makanan / nourriture			
c. Obat-obatan : Médicaments			
.....			
d. Tenaga Kerja : courrier			
Pemeliharaan entretient			
.....			
e. Alat-alat : matériels			
Kandang cage			
.....			
f. Lain-lain			
Jumlah			

Isikan : [a] Satuan ukuran : Ekor, Liter, Kg, HOK, ...

4. Ayam / poulet

Jenis biaya	Jumlah yang digunakan (satuan)[a)]	Jumlah yang dibeli/dibayar (satuan)[a)]	Nilai yang dibeli/dibayar (Rp)
a. Bibit			
b. Makanan			
c. Obat-obatan :			
.....			
.....			
d. Tenaga Kerja : Pemeliharaan			
.....			
e. Alat-alat : Kandang			
.....			
f. Lain-lain			
Jumlah			

5. .....

Jenis biaya	Jumlah yang digunakan (satuan)[a)]	Jumlah yang dibeli/dibayar (satuan)[a)]	Nilai yang dibeli/dibayar (Rp)
a. Bibit			
b. Makanan			
c. Obat-obatan :			
.....			
.....			
d. Tenaga Kerja : Pemeliharaan			
.....			
e. Alat-alat : Kandang			
.....			
f. Lain-lain			
Jumlah			

Isikan : [a)]Satuan ukuran : Ekor, Liter, Kg, HOK, ...

VII. PENDAPATAN LUAR USAHATANI. Income hors exploitation

Valeur / an

Status Keluarga Statut de la famille	Jenis mata Pencaharian a) type de job	Nilai pendapatan Per bulan (Rp) income / mois	Nilai Pendapatan Per tahun (Rp)
Suami mari			
Istri femme			
Anak enfants			
.....			
.....			
Jumlah			

Isikan : a) Dagang Commercant
Buruh tani ouvrier agricole
Buruh bangunan -u-
Pegawai fonctionnaire
.....

VIII. PENGELUARAN JASA DAN PAJAK PEMAKAIAN UNTUK USAHATANI
output : service et tax d'exploitation

Jenis Pengeluaran type de dépenses	Usahatani exploitation Perkebunan (Rp) plantation	Tan. pangan (Rp) vivrière	Peternakan (Rp) Bétail	Jumlah Pengeluaran (Rp) Nombre de dépense
1. Sewa tanah : parcelle louée				
.....				
.....				
.....				
2. Sewa alat : Matériels loués				
.....				
.....				
.....				
3. Sewa ternak : Animaux loués				
.....				
.....				
.....				
4. Iuran/Sumbangan : don				
.....				
.....				
.....				
5. Pajak - pajak : Tax's				
.....				
.....				
.....				
6. Maro/Bagi hasil : faire-valoir				
.....				
.....				
.....				
Jumlah Total				

Depenses des familles/an

IX. PENGELUARAN KELUARGA PER TAHUN

A. Pengeluaran Konsumsi, Jasa dan Rumah Tangga
Depenses consomées, service de famille.

Jenis Pengeluaran / Type de dépense	Per minggu (Rp) / par semaine	Per bulan (Rp) / par mois	Per tahun (Rp) / par an
1. Makanan dan minuman			
2. Tembakau/rokok/sirih. Tabac / cigaret / sirih.			
3. Perumahan maison			
4. Bahan bakar, air dan penerangan. fuel, eau et électricité			
5. Kesehatan, santé			
6. Pendidikan éducation			
7. Perhubungan/transportasi			
8. Rekreasi dan Sosial			
9. Jasa - jasa services			
10. Pakaian Habille.			
11. Alat dan perabotan rumah tangga,			
12. Pajak pemakaian dan premi asuransi Tax, Assurance			
13. Pesta dan upacara Ceremonie.			
Jumlah Total.			

B. Investasi (1 tahun) investissement (1an)

Jenis investasi / Type d'investissement	Nilai investasi (Rp) / Valeur d'investissement
1. Pembuatan rumah baru nouvelle maison	
2. Perbaikan rumah renovata	
3. Beli rumah baru achat de la maison	
4. Beli alat-alat pertanian achat matériel Agricol	
5. Lumbung, gudang, kandang stocage,	
6. Pembelian kendaraan achat voiture	
7. Lain-lain autres	
Jumlah Total.	

C. Tabungan (1 tahun)

Jenis Tabungan	Nilai tabungan (Rp)
1. Tabungan TABANAS/TASKA	
2. D e p o s i t o Deposit	
3. Tabungan barang	
4. Lain - lain autres	
J u m l a h Total →	

D. Sisa hutang (Rp) : _____
Rest de credit (Rp)

Pendekatan :

Pendapatan per kapita =
income per capite.

Total Pengeluaran + Total Investasi + Total Tabungan - Sisa Hutang
Jumlah Tanggungan Keluarga

Total dépenses + Total d'investissement + Total deposit — rest de credit
Nombre de famille

SFDP West-Kalimantan field trip report
February 1995

UPLAND RICE VARIETIES SURVEY

UPLAND RIVE VARIETY SURVEY
PADDI LADANG SURVEI

Desa :
Dusun :
Kecamatan :
Kabupaten :
Propinsi :

FEBRUARY 1995

NAMA JENIS PADDI LADANG	WAKTU PANEN bulan	ORIGIN DARI MANA	OBSERVATIONS
	3		
	3		
	4		
	4		
	4		
	5		
	5		
	5		
	5		
	5		
	6		
	6		
	6		
	6		
	6		

	7		
	7		
	7		

Dari mana : asli, dari Jawa, dari lain, dari proyek (yang proyek....)
Semua informasi tentang produksi.....
Harus tulis yang jenis petani lebih suka.

RAS 1 PLOT MONITORING FILE

RAS PLOT MONITORING FILE

RAS 1

Nama petani	:
Desa	:
Dusun	:
Kecamantan	:
Kabupaten	:
Propinsi	:
Nama kelompok tani	:
Alamat	:
Plot area/luas plot in m^2	:

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RAS 1

PLOT PREPARATION and PLANTING/preparasi kebun dan tanam

Slashing date/waktu bersikhan lokasi :
burning date/ :

paddy planting/waktu tanam paddi :

other associated crop planting/tanam lain :
corn/Jaggung :
cassava :
vegetables/sayuran :
other/lain..... :

Number of tress
berapa pohon karet

Rubber planting date/waktu tanam karet :
direct planting/lanfsum ditanam :
Tapih or polybag technique
/tapih atau polibag teknik :

Fertilization/pupuk Rock phosphate :
Dose per tree/berapa gram per pohon :
Dose per plot/berapa pupuk per plot :

PLANTING MATERIAL

Rubber stump clone/OMAT klon apa :
Origin of the budwood/entrys dari mana :
Origin of the rootstocks/batang bawah dari mana :

Budwood only/atau entrys saja ? :
Origin of the budwood/entrys dari mana :

RAS 1

HARVESTING/WAKTU PANEN

Paddy harvesting date
/tanggal panen paddi :
Rice variety/jenis paddi :
Rice cycle/waktu panen :
Production of the plot/produksi plot :
Yield per ha/hasil per ha :

other associated crop harvesting Yield	tanggal tanaman Planting date	tanggal panen produksi harvesting date Production	hasil
/panentanaman makanan lain	:		
corn/Jaggung	:		
cassava	:		
vegetables/sayuran	:		
other/lain.....	:		

RUBBER growth MONITORING/KARET pertumbuhan MONITORING

YEAR /tahun	Number of planted tree /berapa pohon ditanam	Number of dead trees /berara pohon mati	Number of dry trees /berapa pohon kering	Number of fallen trees /Berapa pohon	diameter in cm
Planting /waktu Ditanam					
1					
2					
3					
4					
5					
6					
7					

The diameter is measured every year at aniversary, one year after planting, 1 meter above ground level

RAS 2 PLOT MONITORING FILE

RAS PLOT MONITORING FILE

RAS 2

Nama petani :
Desa :
Dusun :
Kecamantan :
Kabupaten :
Propinsi :

Nama kelompok tani :
Alamat :

Plot area/luas plot in m :

Clone/klon : :

FEBRUARY 1995

RAS 2

PLOT PREPARATION and PLANTING/praparasi kebun dan tanam

Slashing date/waktu bersikhan lokasi :
burning date/ :
paddy planting/waktu tanam paddi :
other associated crop planting/tanam lain :
corn/Jaggung :
cassava :
vegetables/sayuran :
other/lain..... :

Number of rubber trees

berapa pohon karet

Rubber planting date/waktu tanam karet :
direct planting/lanfsum ditanam :
Tapih or polybag technique
/tapih atau polibag teknik
:
Fertilization/pupuk Rock phosphate :
Dose per tree/berapa gram per pohon :
Dose per plot/berapa pupuk per plot

Associated perennial trees planting date :
/pohon lain waktu tanam :

RUBBBER PLANTING MATERIAL/KARET

Rubber stump clone/OMAT klon apa :
Origin of the budwood/entrys dari mana :
Origin of the rootstocks/batang bawah dari mana :

Budwood only/atau entrys saja ? :
Origin of the budwood/entrys dari mana :

ASSOCIATED PERENNIAL PLANTING MATERIAL/POHON LAIN

SEE TABEL/lihat tabel
250 trees/ha 250 pohon lain /ha

ASSOCIATED PERENNIAL PLANTING MATERIAL/POHON LAIN

TREE POHON	NUMBER of TREES Nonor pohon	ORIGIN DARI MANA	VARIETY NAMA JENIS
DURIAN			
RAMBUTAN			
DUKU			
PETAI			
CEMPEDAK			
JENGKOL			
TANGKIL/MLINJAU			
TENGKAWANG			
OTHER FRUIT TREE POHON BUAH LAIN			
.....			
.....			
SENGON			
ACACIA			
TIMBER TREES POHON KAYU			
.....			
.....			
.....			
.....			
.....			
OTHER TREE POHON LAIN			

RUBBER growth MONITORING/KARET pertumbuhan MONITORING

RAS Plot monotoring file

YEAR /tahun	Number of planted tree /berapa pohon ditanam	Number of dead trees /berara pohon mati	Number of dry trees /berapa pohon kering	Number of fallen trees /Berapa pohon	diameter in cm
Planting /waktu Ditanam					
1					
2					
3					
4					
5					
6					
7					

The diameter is measured every year at aniversary, one year after planting, 1 meter above ground level

Planting density for rubber : 550 trees/ha 550 pohon karet/ha

RAS 2

INTERCROPS

YEAR 1 HARVESTING FIRST YEAR OF CROPPING/PANEN TAHUN PERTAMA

Paddy harvesting date/tanggal panen paddi :
Rice variety/jenis paddi :
Rice cycle/waktu panen :
Production of the plot/produksi plot :
Yield per ha/hasil per ha :

	tanggal panen	produksi
hasil		
	harvesting date	Production
Yield		

other associated crop harvesting /panentanaman makanan lain :
corn/Jaggung :
cassava :
vegetables/sayuran :
other/lain..... :

After rice : second intercrop duting dry season
sessudah paddi : ada tanaman makanan lain
musin kering : di antara bulan maret dan september :

nama jenis

Corn/jaggung :
Chili/cabe :
Other/lain :

Presence of Imperata/ada alang² ? :

OBSERVATIONS :

Number of sub plot for YEAR 2/berapa sub plot tahun kedua ? :

RAS 2

YEAR 2 HARVESTING SECOND YEAR OF CROPPING/PANEN TAHUN KEDUA

SUB-PLOT DESCRIPTION /DESCRIPSI SUB-PLOT :
One file by sub plot

PADDY

Weeding/menbersikan :
Paddy planting/waktu tanam paddi :
Paddy harvesting date/tanggal panen paddi :
Rice variety/jenis paddi :
Rice cycle/waktu panen :
Origin/dari mana :

Production of the plot/produksi plot :
Yield per ha/hasil per ha :

Fertilization/pupuk :

rock phosphate in kg :
dose per ha :
dose per plot :

urea in kg :
dose per ha :
dose per plot :

other associated crop harvesting /panentanaman makanan lain ***or other crop if not paddy atau tanaman makanan lain kalau bukan paddi*** :

	tanggal tanaman Planting date	tanggal panen harvesting date	produksi Production
			hasil Yield
corn/Jaggung :			
cassava :			
vegetables/sayuran :			
other/lain..... :			

RAS Plot monotoring file

After rice : second intercrop duting dry season
sessudah paddi : ada tanaman makanan lain
musin kering : di antara bulan maret dan september :

	Nama jenis>	tanggal tanaman	tanggal panen	produksi hasil
	variety	Planting date	harvesting date	Production Yield

Corn/jaggung :
Chili/cabe :
Other/lain :

Presence of Imperata/ada alang² ? :

OBSERVATIONS :

RAS 2

YEAR 3 HARVESTING SECOND YEAR OF CROPPING/PANEN TAHUN KEDUA

SUB-PLOT DESCRIPTION /DESCRIPSI SUB-PLOT :
One file by sub plot

PADDY

Weeding/menbersikan :
Paddy planting/waktu tanam paddi :
Paddy harvesting date/tanggal panen paddi :
Rice variety/jenis paddi :
Rice cycle/waktu panen :
Origin/dari mana :

Production of the plot/produksi plot :
Yield per ha/hasil per ha :

Fertilization/pupuk :

rock phosphate in kg :
dose per ha :
dose per plot :

urea in kg :
dose per ha :
dose per plot :

other associated crop harvesting /panentanaman makanan lain ***or other crop if not paddy atau tanaman makanan lain kalau bukan paddi*** :

	tanggal tanaman plating date	tanggal panen harvesting date	produksi hasil Production Yield
corn/Jaggung	:		
cassava	:		
vegetables/sayuran	:		
other/lain.....	:		

RAS Plot monotoring file

After rice : second intercrop duting dry season
sessudah paddi : ada tanaman makanan lain
musin kering : di antara bulan maret dan september :

	Nama jenis	tanggal tanaman	tanggal panen	produksi hasil
	variety	Planting date	harvesting date	Production Yield

Corn/jaggung :
Chili/cabe :
Other/lain :

Presence of Imperata/ada alang² ? :

OBSERVATIONS :

RAS 3 PLOT MONITORING FILE

RAS PLOT MONITORING FILE

RAS 3

Nama petani :
Desa :
Dusun :
Kecamantan :
Kabupaten :
Propinsi :

Nama kelompok tani :
Alamat :

Plot area/luas plot in m :

Clone/klon : :

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RAS 3

PLOT PREPARATION and PLANTING/praparasi kebun dan tanam

Slashing date/waktu bersikhan lokasi :
burning date/ :
paddy planting/waktu tanam paddi :
other associated crop planting/tanam lain :
corn/Jaggung :
cassava :
vegetables/sayuran :
other/lain..... :

Number of rubber trees
berapa pohon karet

Rubber planting date/waktu tanam karet :
direct planting/lanfsum ditanam :
Tapih or polybag technique
/tapih atau polibag teknik
:
Fertilization/pupuk Rock phosphate :
Dose per tree/berapa gram per pohon :
Dose per plot/berapa pupuk per plot

Associated perennial trees planting date :
/pohon lain waktu tanam :

RUBBBER PLANTING MATERIAL/KARET

Rubber stump clone/OMAT klon apa :
Origin of the budwood/entrys dari mana :
Origin of the rootstocks/batang bawah dari mana :

Budwood only/atau entrys saja ? :
Origin of the budwood/entrys dari mana :

ASSOCIATED PERENNIAL PLANTING MATERIAL/POHON LAIN

SEE TABEL/lihat tabel
250 trees/ha 250 pohon lain /ha

ASSOCIATED PERENNIAL PLANTING MATERIAL/POHON LAIN

TREE POHON	NUMBER of TREES Nonor pohon	ORIGIN DARI MANA	VARIETY NAMA JENIS
DURIAN			
RAMBUTAN			
DUKU			
PETAI			
CEMPEDAK			
JENGKOL			
TANGKIL/MLINJAU			
TENGKAWANG			
OTHER FRUIT TREE POHON BUAH LAIN			
.....			
.....			
SENGON			
ACACIA			
TIMBER TREES POHON KAYU			
.....			
.....			
.....			
.....			
.....			
OTHER TREE POHON LAIN			

RUBBER growth MONITORING/KARET pertumbuhan MONITORING

YEAR /tahun	Number of planted tree /berapa pohon ditanam	Number of dead trees /berara pohon mati	Number of dry trees /berapa pohon kering	Number of fallen trees /Berapa pohon	diameter in cm
Planting /waktu Ditanam					
1					
2					
3					
4					
5					
6					
7					

The diameter is measured every year at aniversary, one year after planting, 1 meter above ground level

Planting density for rubber : 550 trees/ha 550 pohon karet/ha

RAS Plot monotoring file

RAS 3

INTERCROPS

YEAR 1 HARVESTING FIRST YEAR OF CROPPING/PANEN TAHUN PERTAMA

Paddy harvesting date/tanggal panen paddi **:**
Rice variety/jenis paddi :
Rice cycle/waktu panen :
Production of the plot/produksi plot :
Yield per ha/hasil per ha :

	tanggal panen harvesting date	produksi Production	hasil Yield
other associated crop harvesting /panentanaman makanan lain :			
corn/Jaggung :			
cassava :			
vegetables/sayuran :			
other/lain..... :			

After rice : second intercrop duting dry season
sessudah paddi : ada tanaman makanan lain
musin kering : di antara bulan maret dan september :

nama jenis

Corn/jaggung :
Chili/cabe :
Other/lain :

Presence of Imperata/ada alang² ? :

OBSERVATIONS :

Number of RAS 3 sub plot for YEAR 1 after rice/berapa sub plot tahun pertama sesudah padi ? :

RAS 3

MPT's and COVERCROPS

MPT's dan rumput
YEAR 1/TAHUN 1 sesudah tanaman makanan

SUB-PLOT DESCRIPTION /DESCRIPSI SUB-PLOT :-
One file by sub plot

Total area of the sub-plot/luas sub plot in m² : 1000 m² or/atau lain :

A SUBPLOT without fertilization/SUBPLOT tidak pakai pupuk

		6 months after planting 6 bulans sesudah ditanam		
	planting density	number of trees/berapa pohon good/bagus	average/sedang	dead/mati
SCC	:			
(shrub cover crops)	:			
covercrop:rumput :	:			
Association SCC/Covercrops				
Combinasi SCC/rumput	:			

B SUBPLOT with fertilization/SUBPLOT dengan pupuk

Area of the sub-plot/luas sub plot in m² : 500 m² or/atau lain :
Fertilization/pupuk
:

rock phosphate in kg :
dose per ha :
dose per plot :

urea in kg :
dose per ha :
dose per plot :

RAS Plot monotoring file

		6 months after planting 6 bulans sesudah ditanam		
	planting density	**number of trees/berapa pohon**		
		good/bagus	**average/sedang**	**dead/mati**
SCC :				
(shrub cover crops) :				
covercrop:rumput : :				
Association SCC/Covercrops				
Combinasi SCC/rumput :				

Presence of Imperata/ada alang² ? :

OBSERVATIONS :

RAS 3

YEAR 2 MPT's and COVERCROPS

MPT's dan rumput

DESCRIPTION /DESCRIPSI SUB-PLOT :
One file by sub plot

Total area of the sub-plot/luas sub plot in m² : 1000 m² or/atau lain :

A SUBPLOT without fertilization/SUBPLOT tidak pakai pupuk

		12 months after planting 12 bulans sesudah ditanam		
	planting density	**number of trees/berapa pohon**		
		good/bagus	**average/sedang**	**dead/mati**
SCC :				
(shrub cover crops) :				
covercrop:rumput : :				
Association SCC/Covercrops				
Combinasi SCC/rumput :				

B SUBPLOT with fertilization/SUBPLOT dengan pupuk

Area of the sub-plot/luas sub plot in m² : 500 m² or/atau lain :

		12 months after planting 12 bulans sesudah ditanam		
	planting density	**number of trees/berapa pohon**		
		good/bagus	**average/sedang**	**dead/mati**
SCC :				
(shrub cover crops) :				
covercrop:rumput : :				
Association SCC/Covercrops				
Combinasi SCC/rumput :				

Presence of Imperata/ada alang² ? :

OBSERVATIONS :

RAS Plot monotoring file

A SUBPLOT without fertilization/SUBPLOT tidak pakai pupuk

		18 months after planting 18 bulans sesudah ditanam		
	planting density	**number of trees/berapa pohon**		
		good/bagus	**average/sedang**	**dead/mati**
SCC :				
(shrub cover crops) :				
covercrop:rumput : :				
Association SCC/Covercrops				
Combinasi SCC/rumput :				

B SUBPLOT with fertilization/SUBPLOT dengan pupuk

Area of the sub-plot/luas sub plot in m² : 500 m² or/atau lain :

		18 months after planting 18 bulans sesudah ditanam		
	planting density	**number of trees/berapa pohon**		
		good/bagus	**average/sedang**	**dead/mati**
SCC :				
(shrub cover crops) :				
covercrop:rumput : :				
Association SCC/Covercrops				
Combinasi SCC/rumput :				

Presence of Imperata/ada alang² ? :

OBSERVATIONS :

ANNEX 6

Grafting sucess and planting material distribution
Total expenses of SRAP at the date of the writing of this report.

RUBBER PLANTING MATERIAL PRODUCTION AND NURSERIES : november 1994.

List of planting material distribution.

Map of 1994 november nurseries and number of viable plants per plots

Payement calculation for oculators according to the grafting success rate : balance payement.

Total number of plants distributes per farmers.

Main features of 1995 February OFT planting : situation and areas in February 1995.

List of associated perennials required for RAS 2 and 3 trials : for the identification of the species that are not available to the farmers and should be provided by the project.

The map of the budwood garden implemented in Sanjan, Sanggau area.

The map of the budwood garden implemented in Senboja II, Sanggau area.

DAFTAR PETANI, KLON DAN LOKASI RAS DI SANGGAU DAN SINTANG

File:dafras

No.	Nama Petani	Luas (ha)	RAS	Prioritas	Klon	Banyaknya (batang) diperlukan	Banyaknya (batang) dikirim	Jarak Tanam (m)	Jml. Pupuk RP	Teknik Tapih	Total Pupuk RP
	Kopar										
1	**Sudin (0.62)**	0.50	3	1	RRIC 100	275	303	3 x 6	55.00	7.56	62.56
2	**Indi**	0.35	3	1	BPM 1	193	212	3 x 6	38.50	5.29	43.79
3	**Muksin**	0.34	2	1	RRIC 100	187	206	3 x 6	37.40	5.14	42.54
4	**Stepanus**	0.29	1	1	PB 260	218	239	2.5 x 5.3	43.50	5.98	49.48
5	***Abui***	0.44	3	2	BPM 1	242	266	3 x 6	48.40	6.66	55.06
6	***Kai***	0.35	3	2	RRIC 100	193	212	3 x 6	38.50	5.29	43.79
7	Jampi (0.94)	0.50	3	3	PB 260	275	303	3 x 6	55.00	7.56	62.56
	Maringin Jaya					1,582	1,740		316.30	43.49	359.79
1	**Fransisco**	0.45	1	1	PB 260	338	371	2.5 x 5.3	67.50	9.28	76.78
2	**Gabriel 1**	0.43	3 klon	1	RRIC 100	78	86	3 x 6	15.60	2.15	17.75
					PB 260	78	86	3 x 6	15.60	2.15	17.75
					BPM 1	78	86	3 x 6	15.60	2.15	17.75
3	**Gabriel 2**	0.32	2	1	RRIC 100	176	194	3 x 6	35.20	4.84	40.04
4	**Bans. Bakun**	0.30	1	1	PB 260	165	182	3 x 6	33.00	4.54	37.54
5	**Christianus Umar**	0.39	3	1	PB 260	214	235	3 x 6	42.80	5.89	48.69
6	**Andreas**	0.23	2	1	BPM 1	126	139	3 x 6	25.20	3.47	28.67
7	***Gamin***	0.25	2	2	BPM 1	137	151	3 x 6	27.40	3.77	31.17
						1,390	1,528		277.90	38.21	316.11
	Semboja 2	0.15		1	PB 260	200	220	1 x 1	40.00	11.00	51.00
					RRIC 100	200	220	1 x 1	40.00	11.00	51.00
					BPM 1	200	220	1 x 1	40.00	11.00	51.00
					TM 8	200	220	1 x 1	40.00	11.00	51.00
					RRIM 600	200	220	1 x 1	40.00	11.00	51.00
					~~TM9~~	~~200~~	~~220~~	~~1 x 1~~	~~40.00~~	~~11.00~~	~~51.00~~
						1,200	1,320		240.00	66.00	306.00
	Sanjan	0.02			PB 260	120	132	1 x 1	24.00	6.60	30.60
					RRIC 100	40	44	1 x 1	8.00	2.20	10.20
					BPM 1	40	44	1 x 1	8.00	2.20	10.20
						200	220		40.00	11.00	51.00
	Total:	5.31				4,371	4,808		874.20	158.70	1,012.50

Keterangan			
Jumlah Bibit:			
1. Kopar:			
RRIC 100	720		
BPM 1	478		
PB 260	542		
2. Maringin Jaya:			
RRIC 100	279		
BPM 1	375		
PB 260	874		
3. Semboja 2			
RRIC 100	220		
BPM 1	220		
PB 260	220		
TM 8	220		
RRIM 600	220		
TM 9	220		

Total:	Diperlukan	Tersedia	Kurang
RRIC 100	1,219	1350	131
BPM 1	1,073	615	(458)
PB 260	1,636	2095	459
TM 8	220	66	(154)
RRIM 600	220		(220)
~~TM 9~~	~~220~~		~~(220)~~
~~di luar Sanjan~~			
Sanjan:			
PB 260	120		(120)
RRIC 100	40	40	0
BPM 1	40		(40)

Wakid BPM 1 121	Suyadi BPM 1 161	Partinah PB 260 | PB 260 193	Asmi PB 260 222
Paimin BPM 1 132			Warsani PB 260 231
			Sri Utami PB 260 160
			Supina PB 260 156
			Nuriati PB 260 218

SUKAMULYA 1 (Marcho)

Total yang hidup pada tgl. 12–01–95
PB 260 = 1180
BPM 1 = 414

SINTANG

Yang Terokulasi :
RRIC = 3100 bt
TM 8 = 100 bt

Kirim I (07–01–95):
RRIC = 1100 bt
TM 8 = 68 bt
Kirim II (09–01–95):
RRIC = 240 bt

Warsani PB 260 22	Utami PB 260 60
Supina PB 260 25	Asmi PB 260 82
	Sutina PB 260 79

Yang Hidup

PB 260 = 365
BPM 1 = –

SUKAMLUYA 2

Wakid PB 260 100

SEMBOJA 1	Eko PB 260 1	Eko PB 260 1	Sani BPM 1 4	Sani BPM 1 2
Eko PB 260 7	Eko PB 260 9	Eko PB 260 12	Sani BPM 1 4	Sani BPM 1 3
	Eko = 260		Sani = 150	

Yang Hidup
PB 260 = 30
BPM 1 = 13

SIMANJUNTAK		Nuriani PB 260 77	Sutchono PB 260 193	Sri Utami PB 260 61
	94 PB 260 (Sjn)	Eko PB 260 134	Sani PB 260 65	Subadi PB 260 105
			Eko + Sani BPM 1 50	4 orang BPM 1 250
			Iskandar PB 260 67	
			PB 260	95 Rootstocks

Yang Hidup: (s/d 2.1.95)
PB 260 = 702
BPM 1 = 300

Hasil Okulasi Karet Entris dari "Good Year" di Sanggau dan Sintang

File:Okulasi

No.	Lokasi/ Okulator	Klon	Jumlah			Biaya Okulasi				
			Terokulasi	Hidup	% jadi	/batang	Total	50 %	Hidup	Selisih
1	Sukamulya 1									
	Paimin	BPM 1	240	132	55.00	70	16800	8400	9240	840
	Wakid	BPM 1	240	121	50.42	70	16800	8400	8470	70
	Suyadi	BPM 1	280	161	57.50	70	19600	9800	11270	1470
	Partinah	PB 260	440	193	43.86	50	22000	11000	9650	−1350
	Asmi	PB 260	246	222	90.24	50	12300	6150	11100	4950
	Warsani	PB 260	312	231	74.04	50	15600	7800	11550	3750
	Sri Utami	PB 260	234	160	68.38	50	11700	5850	8000	2150
	Sutina	PB 260	360	156	43.33	50	18000	9000	7800	−1200
	Nuriati	PB 260	235	218	92.77	50	11750	5875	10900	5025
			2587	1594	61.62	510	144550	72275	87980	18255
2	Sukamulya 2									
	Supina/Turjana	PB 260	40	25	62.50	50	2000	1000	1250	250
	Warsani	PB 260	46	22	47.83	50	2300	1150	1100	−50
	Sri Utami	PB 260	97	60	61.86	50	4850	2425	3000	575
	Asmi	PB 260	190	82	43.16	50	9500	4750	4100	−650
	Sutina	PB 260	150	79	52.67	50	7500	3750	3950	200
	Wakid	PB 260	320	97	30.31	50	16000	8000	4850	−3150
			843	365	43.30	300	42150	21075	18250	1025
3	Semboja 1									
	Eko	PB 260	260	30	11.54	50	13000	6500	1500	−5000
	Sani	BPM 1	150	13	8.67	70	10500	5250	910	−4340
			410	43	10.49	120	23500	11750	2410	
4	Simanjuntak									
	Eko	PB 260	150	134	89.33	50	7500	3750	6700	2950
	Sani	PB 260	80	65	81.25	50	4000	2000	3250	1250
	Nuriati	PB 260	150	77	51.33	50	7500	3750	3850	100
	Sutchono	PB 260	200	193	96.50	50	10000	5000	9650	4650
	Sri Utami	PB 260	120	61	50.83	50	6000	3000	3050	50
	Subadi	PB 260	205	105	51.22	50	10250	5125	5250	125
	Eko	BPM 1	200	50	25.00	70	14000	7000	3500	−3500
	Sani	BPM 1	160		0.00	70	11200	5600	0	−5600
	Iskandar	PB 260	100	67	67.00	50	5000	2500	3350	850
	Jono/Wakid	BPM 1	150	50	33.33	70	10500	5250	3500	−1750
	Suyadi	BPM 1	100	40	40.00	70	7000	3500	2800	−700
	Subadi	BPM 1	100	40	40.00	70	7000	3500	2800	−700
	Sani	BPM 1	100	40	40.00	70	7000	3500	2800	−700
	Sri Utami	BPM 1	150	40	26.67	70	10500	5250	2800	−2450
	Nuriati	BPM 1	100	40	40.00	70	7000	3500	2800	−700
			2065	1002	48.52	910	124450	62225	56100	9975
5	Sintang									
		RRIC 100	3100	1340	43.23					
		TM 8	100	68	68.00					
			3200	1408	44.00					
	Jumlah	BPM 1	1970	727	36.90					
		PB 260	3935	2277	57.87					
		RRIC 100	3100	1340	43.23					
		TM 8	100	68	68.00					
	Total		9105	4412	48.46					

JADUAL PENGIRIMAN BIBIT OMAT UNTUK "TRIAL ON-FARM AND BUDWOOD GARDEN" BULAN JANUARI 1995 DI KOPAR, MARINGIN JAYA, SANJAN, SEI KOSAK DAN SEMBOJA II

File:tranomat

No.	Lokasi Pengambilan	Jenis Klon	Jumlah (batang)	Waktu	Tujuan	Jumlah	Keterangan		
							Pupuk	Pola	Lokasi
*	Omat Karet dan Pupuk			Minggu			Kirim Pupuk		
01.	Sintang	RRIC 100	1100	08-01-95	Sudin	303	09-01-95	RAS 3	Kopar
					Muksin	206	09-01-95	RAS 2	Kopar
					Kai	211	08-01-95	RAS 3	Kopar
					Gabriel 1	86	08-01-95	3 klon	Maringin Jaya
					Gabriel 2	194	08-01-95	RAS 2	Maringin Jaya
				Senin	Hamzah	100	09-01-95	Kebun Entris	Semboja II
		TM 8	68	09-01-95	Hamzah	68	09-01-95	Kebun Entris	Semboja II
02.	Sintang	RRIC 100	250	Selasa	P. Kiong	43	10-01-95	Kebun Entris	Sanjan
				10-01-95	Hamzah	207	09-01-95	Kebun Entris	Semboja II
03.	Sukamulya (Marcho)			Rabu					
		PB 260	710	11-01-95	Panus	239	09-01-95	RAS 1	Kopar
					Fransisco	371	12-01-95	RAS 1	Maringin Jaya
		RRIC 100	50		Akim	50	10-01-95	Kebun entris	Sei Kosak
04.	Sukamulya (Marcho+			Kamis					
	Kambo + Simanjuntak)	PB 260	940	12-01-95	Jampi	303	12-01-95	RAS 3	Kopar
				12-01-95	C. Umar	235	09-01-95	RAS 3	Maringin Jaya
				12-01-95	Bans. Bakun	182	09-01-95	RAS 1	Maringin Jaya
				12-01-95	Hamzah	220	09-01-95	Kebun Entris	Semboja II
		PB 260	86		Gabriel 1	86		3 klon	Maringin Jaya
		BPM 1	50	12-01-95	P. Kiong	50	12-01-95	Kebun Entris	Sanjan
		BPM 1	214	12-01-95	Indi	214	09-01-95	RAS 3	Kopar
05.	Sukamulya +			Jum'at					
	Simanjuntak	BPM 1	266	13-01-95	Abui	266	09-01-95	RAS 3	Kopar
06.	Sintang + Simanjuntak	BPM 1	636	Senin	P. Kiong	40	diambil dari	Kebun Entris	Sanjan
				23-01-95	Andreas	139	Sintang	RAS 2	Maringin Jaya
					Gamin	151	langsung di	RAS 2	Maringin Jaya
					Gabriel 1	86	kirim ke	3 klon	Maringin Jaya
					Hamzah	220	lokasi-2 tsb.	Kebun Entris	Semboja II
		PB 260	1736				Sukamulya: hubungi Pak Wakid		
		RRIC 100	1350				Sintang: hubungi Pak Joko TCSDP		
	Jumlah	BPM 1	1116				Simanjuntak: ambil langsung		
		TM 8	68				Untuk PB 260 dan BPM 1 Sbj 2 dapat ambil di Sbj 1		

SELECTION OF FARMERS AND LOCATION F IN WEST-KALIMANTAN, SANGGAU

PLANTING MATERIAL REQUIREMENT PER LOCATION

VILLAGE Dusun	FARMER	TYPE OF RAS	SELECTION	AREA in ha	TYPE OF CLONES
KOPAR					
	Jambi	3	February	0,5	PB260
	Sudin	3	February	0,5	RRIC 100
	Indi	3	February	0,35	BPM 1
	Muksin	2	February	0,34	RRIC 100
	Stepanus	1	February	0,29	PB 260
	Abui	3	February	0,44	BPM 1
	Kai	3	February	0,35	RRIC 100
TOTAL				**2,77**	**ha**

VILLAGE Dusun	FARMER	TYPE OF RAS	SELECTION	AREA in ha	TYPE OF CLONES
SENGORET					
	Francisco	1	February	0,45	PB 260
	Gabriel/1	RAS/3clor control	February	0,43	RRIC 100 PB 260 BPM 1
	GAbriel/2	2	February	0,32	RRIC 100
	Barnagos	1	February	0,3	PB260
	Chistianos	3	February	0,39	PB 260
	Andreas	2	February	0,23	BPM 1
	Gamin	2	February	0,25	BPM 1
TOTAL				**2,37**	
TOTAL area planted in February 19				**5,14**	**ha**

RAS TRIAL DISTRIBUTION

for 1995 February planting

	NUMBER OF TRIALS	TOTAL AREA OF RAS TRIALS
RAS 1	3	1,04
RAS 1/control	1	0,43
RAS 2	5	1,14
RAS 3	6	2,53
TOTAL	15	5,14

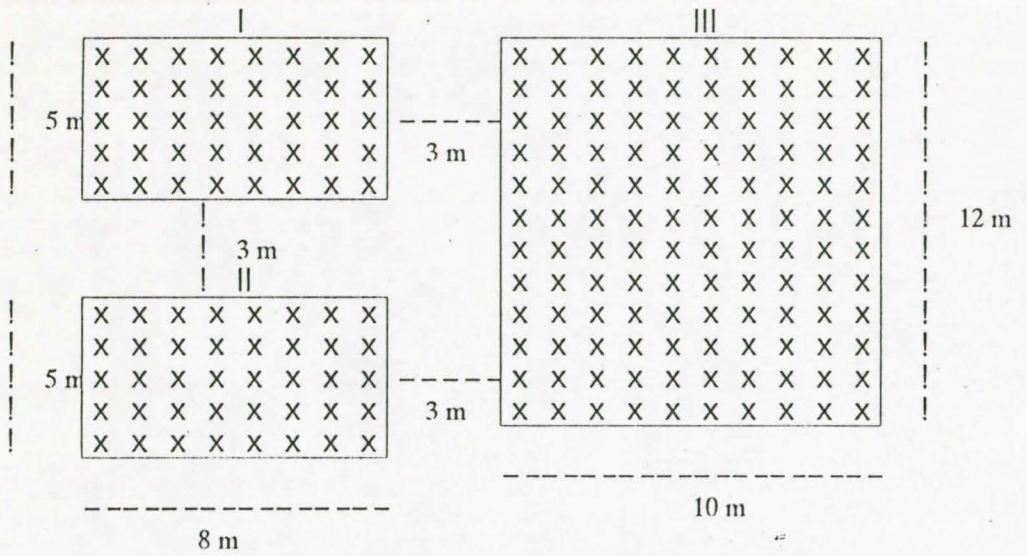
BUDWOOD GARDEN		Number of plants
SEMBOJA	1	680
SANJAN	1	220
SUNGEI KOSSAK	1	100

Daftar Petani Peserta Sistem Wanatani Karet
Kerjasama SFDP (BLI–HK) dengan ICRAF dan Gabkindo

File:Dafras2

No.	Nama Petani	Luas Lahan	RAS	Klon	Pohon Lain	Keterangan
I.	Kopar					
1	Sudin	0.50	3	RRIC 100		
2	Indi	0.35	3	BPM 1		
3	Muksin	0.34	2	RRIC 100		
4	Stepanus	0.29	1	PB 260		
5	Abui	0.44	3	BPM 1		
6	Kai	0.35	3	RRIC 100		
7	Jampi	0.50	3	PB 260		
II.	Maringin Jaya					
1	Fransisco	0.45	1	PB 260		
2	Gabriel 1	0.43	3 klon	RRIC 100 PB 260 BPM 1		
	Gabriel 2	0.32	2	RRIC 100		
3	Bans. Bakun	0.30	1	PB 260		
4	Christianus Umar	0.39	3	PB 260		
5	Andreas	0.23	2	BPM 1		
6	Gamin	0.25	2	BPM 1		
III.	Paribang Baru					
1	Sadang	1	2		Langsat, rambutan, tengkawang, belian, petai, jengkol	
2	Sudin	1	2		Belian, tekam, meranti, tengkawang, petai, jengkol, kemiri, langsat	
3	Anat	1	2		Belian, tengkawang, merkuyung, petai, jengkol, kemiri	Ketua kelompok
4	Sanggang	1	2		Tengkawang, durian, merkuyung, belian, tekam, keladan, meranti, langsat	
5	Amas	1	2		Belian, tengkawang, merkuyung, petai, jengkol, kemiri, rambutan	
6	Haruk	1	2		Belian, tengkawang, merkuyung, petai, jengkol, kemiri	
7	Atat	1	2		Belian, tengkawang, merkuyung, petai, jengkol, kemiri	
8	Apin	1	2		Belian, tengkawang, merkuyung, petai, jengkol, kemiri	
9	Okir	1	2		Belian, tengkawang, merkuyung, petai, jengkol, kemiri	
10	Tius	1	2		Belian, tengkawang, merkuyung, petai, jengkol, kemiri	

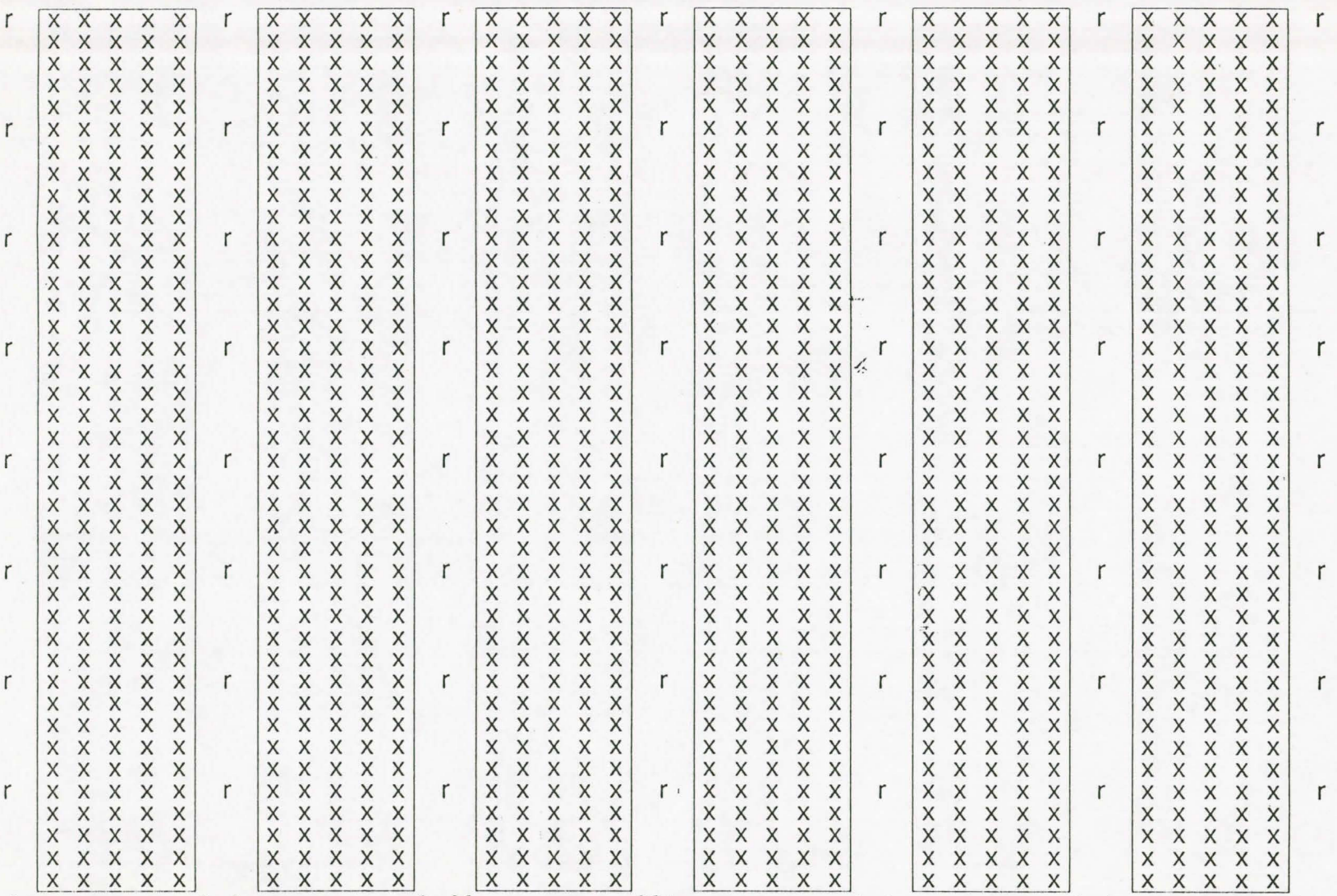
Sanggau area.
Sanjan village.
Budwood garden Map.



Jarak tanam : 1 x 1 m
Ukuran lubang : 40 x 40 x 40 cm
Jenis klon : I = RRIC 100 : 40
II = BPM 1 : 40
III = PB 260 : 120

Cara Pengerjaan:
1. Lahan dibersihkan dari tunggul dan tanaman penggganggu lainnya
2. Lahan digemburkan/diolah
3. Dibuatkan pancang ajir dengan jarak tanam 1 x 1 m
4. Dibuatkan lubang tanaman sebesar ukuran lubang di atas
5. Masukkan pupuk Rock Phosphat 200 gr/lubang sebelum tanam
6. Bibit karet disemaikan dulu dalam polybag sampai payung satu (daun tua)

Pola Penanaman Kebun Entris Kerjasama SFDP dan ICRAF di Semboja II



60

Jarak tanam 1 x 1 m
Ukuran lubang 40 x 40 x 40 cm
Jumlah tanaman per klon = 200 batang

Jumlah pemupukan 200 gr Rock Phosphat/TSP per lubang
Luas keseluruhan (p = 40 m, l = 39 m) = 1560 m2
r = Rambutan

File:Polanam

Sanggau avec.

Budwood garden in Semboja II

RRIM 600 100 TCSDP

RRIC 100 20 c.